INDEX

ABBREVIATIONS A Abstract of paper or address
E Errata
D Discussion on a paper
P Address, lecture or paper
S Synopsis of a paper published in full in a different section of the *Proceedings IEE*

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An index to discussion contributors will be found at the end of this index

Addresses

Aspinall, D., as Chairman of the IEE South Wales Centre A 16
Benson, F.A., as Chairman of the IEE Science, Education & Management Division A 75
Boardman, F.D., as Chairman of the IEE Control & Automation Division A 61
Ferguson, J.M., as IEE President P 1
Hankins, H.C.A., as Chairman of the IEE North-Western Centre A 54
Haughan, G., as Chairman of the IEE Mersey & North Wales Centre A55
Latham, D K., as Chairman of the IEE East Midland Power Section A 236
May, C.A., as Chairman of the IEE Electronics Division A 9
Miller, D.J., as Chairman of the IEE Power Division A 33
Wimbush, J.P., as Chairman of the IEE South-East Scotland Sub-Centre A 55

Commissioned IEE Reviews

Gray, D. Marine electrical installations P1177
Gould, J.E. Permanent magnets P1137
Jones, B. and Waters, R.T. Air insulation at large spacings P1152
Radford, M.F. Electronically scanned antenna systems P1100
Rowe, D.M. Thermoelectric power generation P1113
Weston, G.F. Alphanumeric display P 1077

Computer-program descriptions

Wells, H.J. Digital-filtering facility for computer processing A 922

Conference publications

152 Euromeas-77: Precise electrical measurement P 363
154 Power Electronics-Power Semiconductors and their applications P 8
155 Radar-77 P 824
157 The design and application of e.h.v. substations 1031
165 Gas discharges 1073

Lectures

Paddison, E. 20th Hunter Memorial Lecture P648
Hawley, R. 42nd Parsons Memorial Lecture P 967

Author index

A

Abdalla, O.H., and Walker, P.A.W. (see Walker, P.A.W.)
Adderley, K.J., and Bolton, B. (see Bolton, B.)
Aggarwal, R.K., and Johns, A.T. (see Johns, A.T.)
Airey, D.R. Simple convection-loss dominated model for optically thick SF_6 arcs P770
Al-Hakkak, M.J. Residue-calculus solution of the TM_{10}-mode problem in circular corrugated waveguides P787
Al-Nuaimi, M.O. Response of an a.m. receiver to a quasisynchronous multi-a.m.-transmitter field E 730
Aldefeld, B. Electromagnetic field diffusion in ferromagnetic materials P 278
Alderton, J.R., Anderson, P.C., and Cakebread, R.J. Calculation and measurement of the earth impedance of an e.h.v. substation P 1367
Ali, A.M. Fast changing four quadrant convertor D 765
Allnatt, J.W., and Macdiarmid, I.F. (see Macdiarmid, I.F.)
Allnutt, J.E. Nature of space diversity in microwave communications via geostationary satellites: a review P 369
Ammar, A., Yousuf, S., and Patel, K. Frequency multiplication using field-effect transistors P 267
Amor, C.F. Shorting-coil modulators D 766
Anderson, P.C., Alderton, J.R., and Cakebread, R.J. (see Alderton, J.R.)
Andrew, D.F. Electric train heating with diesel locomotives D 47
Andrew, D.F., and Farrer, W. (see Farrer, W.)
Arkell, C.A., Blake, W.E., Brealey, S.D.R., Hacke, K.J.H., and Hance, G.E.A. Design and construction of the 400 kVA cable syetem for the Severn Tunnel D 1015
Arkell, C.A., Hutson, R.B., and Nicholson, J.A. Development of internally oil-cooled cable systems D 1021
Armstrong, R., Korolkiewicz, E., and Kulesza, B.L.J. Large signal waveforms in a microwave balanced mixer with capacitance P 728
Arnaud, U.C., Burton, J., Crockett, A.E., and Nicholson, J.A. Development and trials of the 400 kVA integral pipe-cooled cable system D 1015
Arriflaga, J., and Bodger, P. A.C.-d.c. load flows with realistic representation of the convertor plant P 41
Arrillaga, J., and Harker, B.J. Fast-decoupled three-phase load flow P 734
Arrillaga, J., and Watson, D.B. Static power conversion from self-excited induction generators P 743
Arthurton, R.I.M., Mellit, B., and Goodman, C.J. (see Mellit, B.)
Asbury, A. POLFAC - a routine to find the factors of a polynomial with real coefficients P 899
Ashen, R.A. Linear scalar-potential models for permanent-magnet circuits P 1403
Ashen, R.A. Permanent-magnet behaviour under 'open-circuit' conditions P 1410
Aspinall, D. Address as Chairman of the IEE South Wales Centre A 16
Athani, V.V., and Khurana, S.K. Torque optimisation of a variable-reructance stepping motor P 1271
Atherton, D.P., and Rao, U.M. (see Rao, U.M.)
Atre, S.R., and Lele, V.P. Analytic application of Tsypkin's method relay with hysteresis and dead zone D 700
Auckland, D.W., Cooper, R., and Walker, C. Absorption of water by electrically stressed polyethylene P 776
Awad, M.M., El-Sayed, M.L., and El-Refaie, E.M. (see El-Sayed, M.L.)
Ayiku, M.N.B., and Kuo, M.C.Y. (see Kuo, M.C.Y.)

B

Babescu, M., and Boldea, I. (see Boldea, I.)
Baggott, A.J., Eyre, B.E., Fielding, G., and Gray, F.M. Use of London's electricity supply system for centralised control P311
Bakhuizen, A.J.C., Niesten, J.G., and Thoone, M.L.G. Is saturation a blessing in disguise? P 407
Bakhuizen, A.J.C., and Wouterse, J.H. Slew-region instability of permanent-magnet stepmotors P 121
Baldwin, J.L.E. Recording Pal signals in digital form P606
Balestrino, A., De Maria, G., and Sciavicco, L. Analysis of modulation processes in power convertors (Summary) P411
Ball, E.H., Endacott, J.D., and Skipper, D.J. UK requirements and future prospects for forced-cooled cable systems D 1021
Bansal, S.C., and Rao, U.M. Evaluation of p.w.m. inverter schemes P 328
Barakat, E.E., and Hirst, D.E. (see Hirst, D.E.)
Barker, H.A., Noble, A.E., and Mills, V.O. Control of resonant vibration in a spring-fatigue-testing instrument P 1045
Barnard, W.R., Binns, K.J., and Jabbar, M.A. (see Binns, K.J.)
Barrault, M.R., Lakshiminarashima, C.S., and Oliver, R. (see Lakshiminarashima, C.S.)
Barton, T.H. Fast changing four quadrant convertor D 765
Basak, A., and Moses, A.J. Influence of stress on rotational loss in silicon iron P 165
Bedford, R.E., and Murthy, K.V.V. (see Murthy, K.V.V.)
Bengiamin, N.N., and Chan, W.C. Multilevel load-frequency control of interconnected power systems P 521
Benjamin, R. Frequency analysis with constant fractional resolution P 502
Bennett, J.C., and Schoessow, E.P. Antenna near-field/ far-field transformation using a plane-wave-synthesis technique P 179
Benson, F.A. Address as Chairman of the IEE Science, Education & Management Division A 75
Besag, E. Simple method of measuring active power in short time variations D 152
Billings, S.A., and Fakhouri, S.Y. Identification of a class of nonlinear systems using correlation analysis P 691
Billings, S.A., and Fakhouri, S.Y. Theory of separable processes with applications to the identification of nonlinear systems P 1051
Bingham, A.W., and Colyer, R.E. Electronic-firing system for machines with thyristor-assisted commutation P 673
Binns, K.J., Barnard, W.R., and Jabbar, M.A. Hybrid permanent-magnet synchronous motors P 203
Binns, K.J., and Rowlands-Rees, E. Radial tooth-ripple forces in induction motors due to the main flux P 1227
Binns, K.J., and Smith, J.R. Prediction of load characteristics of turbogenerators P 197
Blake, W.E., Arkell, C.A., Brealey, S.D.R., Hacke, K.J.H., and Hance, G.E.A. (see Arkell, C.A.)
Bland, T.G., and Freeman, E.M. Scale-model linear induction motors with solid iron secondaries P 1223
Boardman, F.D. Address as Chairman of the IEE Control & Automation Division A 61
Bodger, P., and Arrillaga, J. (see Arrillaga, J.)
Boldea, I., and Babescu, M. Multilayer approach to the analysis of single-sided linear induction motors P 283
Bolton, B., and Adderley, K.J. Use of case studies to support an electrical engineering laboratory course P 247
Bolton, H.R., and Dawson, C. (see Dawson, C.)
Bourn, G.W., Eriksson, A.J., van Niekerk, H.R., and van Zyl, B.B. (see Eriksson, A.J.)
Bowd, D.M., and Urban, C.E. (see Urban, C.E.)
Bowen, S.R., and Chambers, B. Utilisation of radiosonde data in propagation research P 809
Brameller, A., and Rudnick, H. (see Rudnick, H.)
Brašnić, J., and Pasic, Z. (see Pasic, Z.)
Brazil, T.J., Oxley, C.H., Purcell, J.J., and Genner, R. (see Oxley, C.H.)
Brealey, S.D.R., Arkell, C.A., Blake, W.E., Hacke, K.J.H., and Hance, G.E.A. (see Arkell, C.A.)
Breese, P., and Williamson, S. (see Williamson, S.)
Broadway, A.R.W., Lee, Y.W., and Chan, H.Y.F. Multispeed induction motor fed from a switched single-phase supply P 400
Brotherton, W., Cox, H.N., Frost, R.F., and Selves, J. Field trials of 400 kVA internally oil-cooled cables D 1021
Brown, H.J., Cakebread, R.J., and Dawkins, R.B. (see Cakebread, R.J.)
Buckley, G.W., and Lewis, M. (see Lewis, M.)
Burrows, P.J., and Daniels, A.R. Digital excitation control of a.c. turbogenerators using a dedicated microprocessor P 237
Burton, J., Arnaud, U.C., Crockett, A.E., and Nicholson, J.A. (see Arnaud, U.C.)

C

Cakebread, R.J., Brown, H.J., and Dawkins, R.B. Automatic insulator washing system to prevent flashover due to pollution P 1363
Cakebread, R.J., Alderton, J.R., and Anderson, P.C. (see Alderton, J.R.)
Calderwood, J.H., and Rapos, M. (see Rapos, M.)
Calderwood, J.H., Shibuya, Y., and Zoledziowski, S. (see Shibuya, Y.)
Care, P.N., Oakley, K.T., Ward, P.R., and Rumley, D.H. (see Oakley, K.T.)
Carey, M.J., and Constantinides, A.G. Crosstalk in multiplex systems using Walsh functions P 1329

Carpenter, C.J. Theory of flux penetration into laminated iron and associated losses D 1265
Carpenter, C.J., Sharples, K.O., and Djurovic, M. Heating in transformer cores due to radial leakage flux. Pt. 2: Computed results D 1265
Cattermole, K.W., and Jones, E.V. (see Jones, E.V.)
Causebrook, J.H. Medium-wave propagation in built-up areas P 804
Cecchi, E., Martinelli, G., Orlandi, G., and Salerno, M. Possibility of automatically acquiring the optimal adjusting step in adaptive equalisers P 626
Chalmers, B.J., and El Attar, M.M.K. General theory of induction machines with unlaminated secondary and constant-current excitation P 666
Chalmers, B.J., Mwenechanya, J.M., and Pacey, K. Brushless excitation system for a class of variable-speed synchronous motors P 754
Chambers, B., and Bowen, S.R. (see Bowen, S.R.)
Chambers, B., Hall, P.S., and McInnes, P.A. (see Hall, P.S.)
Chan, H.Y.F., Broadway, A.R.W., and Lee, Y.W. (see Broadway, A.R.W.)
Chan, W.C., and Bengiamin, N.N. (see Bengiamin, N.N.)
Chana, G.S., and Daniels, A.R. Turboalternator excitation control incorporating nonlinear state feedback (Summary) P 1245
Chaplin, R.I?. Representation of magnetic characteristic, including hysteresis, using Preisach's theory D 564
Chignell, R.J., and Roberts, J. Compact resonant slot for waveguide arrays P 1213
Chiricozzi, E., Magopian, R., and Nazarian, A. Paramaters and losses of hydrogenerator damping systems P 853
Clarke, R.H., and Tibble, D.V. Measurement of the elevation angles of arrival of multicomponent h.f. skywaves P 17
Coates, R., Dutton, J., and Harris, F.M. Electrical breakdown of nitrogen at high electric fields P 558
Collinson, W.F.P., and Moreton, P.L. Wattmeter for some common requirements P 355
Colyer, R.E., and Bingham, A.W. (see Bingham, A.W.)
Constantinides, A.G., and Carey, M.J. (see Carey, M.J.)
Cook, V. Distance protection performance during simultaneous faults D 761
Cooper, R., Auckland, D.W., and Walker, C. (see Auckland, D.W.)
Coulbeck, B., and Sterling, M.J.H. Optimised control of water distribution systems P 1039
Coulson, M.A., Slater, R.D., and Simpson, R.R.S. Representation of magnetic characteristic, including hysteresis, using Preisach's theory D 564
Cox, H.N., Brotherton, W., Frost, R.F., and Selves, J. (see Brotherton, W.)
Crockett, A.E., Arnaud, U.C., Burton, J., and Nicholson, J.A. (see Arnaud, U.C.)

D

Daniels, A.R., and Lipczynski, R.T. Digital firing-angle circuit for thyristor motor controllers P 245
Daniels, A.R., and Slattery, D.T. Application of power transistors to polyphase regenerative power convertors P 643
Daniels, A.R., and Slattery, D.T. New power convertor technique employing power transistors P 146
Daniels, A.R., and Burrows, P.J. (see Burrows, P.J.)
Daniels, A.R., and Chana, G.S. (see Chana, G.S.)
Darby, P.J. Professional recording of the standard Pal signal P 611
Das, B.N., and Mahesh Kumar. (see Mahesh Kumar.)
Das, B.N., and Rao, J.S. (see Rao, J.S.)
Dawkins, R.B., Cakebread, R.J., and Brown, H.J. (see Cakebread, R.J.)
Dawson, C., and Bolton, H.R. Performance prediction of a wide-angle limited-motion rotary actuator P 895
De Maria, G., Balestrino, A., and Sciavicco, L. (see Balestrino, A.)
de Oliveira, J.C., and Yacamini, R. (see Yacamini, R.)
Delogne, P.P., and Safak, M. (see Safak, M.)
Devereux, V.G., and Jones, A.H. Pulse-code modulation of video signals: codes specifically designed for Pal P 591
Devereux, V.G., and Stott, J.H. Digital video: sub-Nyquist sampling of Pal colour signals P 779
Djurovic, M., Carpenter, C.J., and Sharples, K.O. (see Carpenter, C.J.)
Douce, J.L. Variance of the estimate of amplitude distributions P 422
Dubey, G.K., Krishnamurthy, K.A., and Revankar, G.N. (see Krishnamurthy, K.A.)
Dubey, G.K., Krishnamurthy, K.A., and Revankar, G.N. (see Krishnamurthy, K.A.)
Dutton, J., Coates, R., and Harris, F.M. (see Coates, R.)

E

Eastham, J., and Evans, P.D. Novel disc-motor designs P 416
Economakos, E. Distribution system voltage studies using simulation techniques (Summary) P 151
Edwards, J.B. Wider application of multipass systems theory. Pt. 1: Multimachine and multicell systems P 447
Edwards, J.B. Wider application of multipass systems theory. Pt. 2: Controlled distributed processes P 453
Edwards, J.D., and El-Antably, A.M. Segmental-rotor linear reluctance motors with large airgaps P 209
Edwards, M.H., and Hills, R.C. (see Hills, R.C.)
Edwardson, S.M. Timing errors in Pal colour-television signals P 586
Efthymiadis, A.E., and Wedepohl, L.M. Propagation characteristics of infinitely-long single-conductor lines by the complete field solution method P 511
Efthymiadis, A.E., and Wedepohl, L.M. (see Wedepohl, L.M.)
El-Antably, A.M., and Edwards, J.D. (see Edwards, J.D.)
El Attar, M.M.K., and Chalmers, B.J. (see Chalmers, B.J.)
El-Kateb, M.M.T., and Johns, A.T. (see Johns, A.T.)
El-Missiry, M.M. Current distribution and leakage impedance of various types of foil-wound transformers P 987
El-Refaie, E.M., El-Sayed, M.L., and Awad, M.M. (see El-Sayed, M.L.)
El-Sayed, M.L., El-Refaie, E.M., and Awad, M.M. Effect of pollution on the breakdown voltage of air P 714
Endacott, J.D., Ball, E.H., and Skipper, D.J. (see Ball, E.H.)
Eriksson, A.J., van Niekerk, H.R., Bourn, G.W., and van Zyl, B.B. Lightning ground-flash multiple-stroke discrimination P 555
Evans, P.D., and Eastham, J. (see Eastham, J.)
Eyre, B.E., Baggott, A.J., Fielding, G., and Gray, F.M. (see Baggott, A.J.)

F

Fakhouri, S.Y., and Billings, S.A. (see Billings, S.A.)
Falkner, A.H. Novel electro-optical alignment technique (Summary) P 71
Falkner, A.H. Novel electro-optical instrument for profile measurement P 1396
Fallside, F., and Young, S.J. Speech output from a computercontrolled water-supply network P 157
Fannin, P.C. Low-frequency correlator using a bucket-brigade analogue delay line E 108
Farish, O., Kurimoto, A., and Tedford, D.J. (see Kurimoto, A.)
Farrer, W., and Andrew, D.F. Fully controlled refenerative bridges with half-controlled characteristics P 109
Ferguson, J.M. Address as IEE President P 1
Field, A.D., and Owens, D.H. Canonical form for the reduction of linear scalar systems P 337
Fielding, G., Baggott, A.J., Eyre, B.E., and Gray, F.M. (see Baggott, A.J.)
Finch, J.W., and Lawrenson, P.J. Synchronous performance of single-phase reluctance motors P 1350
Foo, P.Y. . Evaluation of earth-surface thermal gradients due to buried cables P 531
Foord, T.R. Step response of governed hydrogenerator (Summary) P 1247
Freeman, E.M., and Papageorgiou, C. Spatial Fourier transforms: a new view of end effects in linear induction motors P 747
Freeman, E.M., and Wu, K.Y.K. Sinusoidal and transient response of coaxial current shunts P 465
Freeman, E.M., and Bland, T.G. (see Bland, T.G.)
Freris, L.L., and Shore, N.L. (see Shore, N.L.)
Frost, R.F., Brotherton, W., Cox, H.N., and Selves, J. (see Brotherton, W.)
Fulton, N.N., Slater, R.D., and Wood, W.S. Design optimisation of starting windings for 1-phase induction motors P 1219
Fulton, N.N., Slater, R.D., and Wood, W.S. Winding grading of single-phase induction motors D 335

G

Gallagher, P.J., Thomason, B., and Shepherd, W. (see Thomason, B.)
Gardiner, P.S. Some characteristics of negative point-plane corona P 467
Gardner, G.E., and Urwin, R.J. Performance and testing of multiunit circuit breakers switching low inductive currents E 416
Gardner, G.E., and Urwin, R.J. Arc instability and current chopping in an air-blast interrupter D 1027
Gaster, M., and Roberts, J.B. (see Roberts, J.B.)
Genner, R., Oxley, C.H., Brazil, T.J., and Purcell, J.J. (see Oxley, C.H.)
Germay, N., Mastero, S., and Vroman, J. Single-phase ferroresonance on a 150/$\sqrt{3}$ kV voltage transformer: comparison of measured and computed results P 533
Gibbard, M.J., and Phung, V.A. (see Phung, V.A.)
Glennie, E.B. Inductive detection of buried services P 14
Golde, R.H. Lightning and tall structures P 347
Golten, J.W., Ryley, A., and Matterson, A.J. Frequency-response estimates using discrete signals and the radix-2f.f.t. P 891
Goodman, C.J., Mellit, B., and Arthurton, R.I.M. (see Mellit, B.)
Gott, G.F., and Staniforth, M.J.D. Characteristics of interfering signals in aeronautical h.f. voice channels P 1208
Gould, J.E. Permanent magnets (Commissioned IEE Review) P 1137
Gray, D. Marine electrical installations (Commissioned IEE Review) P 1177
Gray, C.B., and Singh, P.N.P. Asymmetrical fault analysis using the bus impedance matrix (Summary) P 671
Gray, F.M., Baggott, A.J., Eyre, B.E., and Fielding, G. (see Baggott, A.J.)
Green, R., Zaid, M.A.M., and Gardiner, J.G. Signal/noise performance evaluation for colour television picture sources P 1195
Grimble, M.J. Design of stochastic optimal feedback control systems P 1275
Grimble, M.J. Design of stochastic optimal feedback control systems P 1275
Grimble, M.J. Simple method for the design of single-input optimum regulators and servomechanisms P 537
Grimble, M.J. Solution of the linear-estimation problem in the s-domain P 541
Guile, A.E., and Hitchcock, A.H. Arc-cathode craters on copper at high currents and with reduced gas pressures P 251
Guile, A.E., Rageh, M.S.I., Morgan, D.V., and Hitchcock, A.H. (see Rageh, M.S.I.)

H

Hacke, K.J.H., Arkell, C.A., Blake, W.E., Brealey, S.D.R., and Hance, G.E.A. (see Arkell, C.A.)
Hagihara, S. Performance and stability of a magnetic suspension device using a tuned LCR circuit P 153
Hajek, M.J., and Roubicek, O Hybrid linear motor P 1357
Halder, A.K. Detection of totally symmetric Boolean functions with the aid of decimal combination tables P 1199
Halder, A.K. Grouping table for the minimisation of n-variable Boolean functions P 474
Hall, P.S., Chambers, B., and McInnes, P.A. Microwave modelling of h.f. Yagi antennas over imperfectly-conducting ground P 261
Hammond, P., and Penman, J. Calculation of eddy currents by dual energy methods P 701
Hammond, P., Tavner, P.J., and Penman, J. (see Tavner, P.J.)
Hance, G.E.A., Arkell, C.A., Blake, W.E., Brealey, S.D.R., and Hacke, K.J.H. (see Arkell, C.A.)
Hankins, H.C.A. Address as Chairman of the IEE North-Western Centre A 54
Harding, M.A. Multiplexed controls on underground trains P 49
Harker, B.J., and Arrillaga, J. (see Arrillaga, J.)
Harris, C.J. Minimum variance control, estimation and simulation of nonlinear models of wastewater-treatment systems P 441
Harris, F.M., Coates, R., and Dutton, J. (see Coates, R.)
Harris, I.A., and Warner, F.L. New expressions and some more precise values for Student's t-factor P 902
Hashim, A. Improvement on Varshamov-Gilbert lower bound on minimum Hamming distance of linear codes P 104
Hassan, M.F., and Singh, M.G. Robust decentralised controller for linear-interconnected dynamical systems P 429
Haughan, G. Address as Chairman of the IEE Mersey & North Wales Centre P55
Hawley, R. 42nd Parsons Memorial Lecture P 967
Heath, J.W., and Jull, E.V. (see Jull, E.V.)
Hemmings, R.F., and Wale, G.D. Heating in transformer cores due to radial leakage flux: Pt. 1: Experimental models and test results D 1265
Henderson, A., and James, J.R. (see James, J.R.)
Heylen, A.E.D., and Watts, M.P. (see Watts, M.P.)
Hida, R., and Peled, I. (see Peled, I.)
Hill, R.J. Design of fail-safe electromagnetic trainspeed sensor P 1239

Hills, R.C., and Edwards, M.H. Technical performance of long chains of u.h.f. television broadcast transmitters P 566
Hirst, D.E., and Barakat, E.E. Improved analysis of jump resonance in single-phase circuits P 1380
Hitchcock, A.H., and Guile, A.E. (see Guile, A.E.)
Hitchcock, A.H., Rageh, M.S.I., Guile, A.E., and Morgan, D.V. (see Rageh, M.S.I.)
Hodjat, F. Electronic scanning antenna using a nonuniformly-spaced planar array P 185
Howe, A.F. Diffusion of moisture through power transformer insulation P 978
Howroyd, D.C. Public-supply-system distortion and unbalance from single-phase a.c. traction P 517
Hughes, V.A. Effects of stacking methods on Epstein-square power-loss measurements D 260
Hugill, A.L. Synthesis of inductive displacement-measuring system using computer-aided design P 417
Humpleman, R.J., and Watson, P.A. Investigation of attenuation by rainfall at 60 GHz P 85
Hurley, N.V. Improvements in high-performance lowpass filters using coupled windings P 865
Hutson, R.B., Arkell, C.A., and Nicholson, J.A. (see Arkell, C.A.)

I

Ioannides, A.C., and Rogers, G.J. (see Rogers, G.J.)
Irving, M.R., Owen, R.C., and Sterling, M.J.H. Power-system state estimation using linear programming P 879
Isma'eel, M.E. Theories of linear induction motors with completely filled and half filled endslots P 657
Isma'eel, M.E. Travelling waves in linear induction machines (Summary) P 527
Issa, N.A.H., Williamson, A.C., and Makky, A.R.A.M. (see Williamson, A.C.)
Iwamoto, M., Sakabe, S., Nakanishi, Y., and Kawamura, T. (see Sakabe, S.)

J

Jabbar, M.A., Binns, K.J., and Barnard, W.R. (see Binns, K.J.)
Jackson, R.J. Interlamination voltages in large turbogenerators P 1232
James, J.R., and Henderson, A. Electrically short monopole antennas with dielectric or ferrite coatings P 793
Johns, A.T., and Aggarwal, R.K. Performance of high-speed distance relays with particular reference to travelling-wave effects D 761
Johns, A.T., and El-Kateb, M.M.T. Developments in techniques for simulating faults in e.h.v. transmission systems P 221
Johns, A.T., and Martin, M.A. Fundamental digital approach to the distance protection of e.h.v. transmission lines P 377
Jones, A.H., and Devereux, V.G. (see Devereux, V.G.)
Jones, B., and Waters, R.T. Air insulation at large spacings (Commissioned IEE Review) P 1152
Jones, E.V., and Cattermole, K.W. Two-way transmission of baseband digital signals P 815
Jones, T.B., and Spracklen, C.T. Technique for assessing the bearing accuracy of distant h.f. transmitters P 469
Jull, E.V., and Heath, J.W. Conducting surface corrugations for multipath interference suppression P 1321

K

Kak, S.C. Encryption of signals using data transpositions (Summary) P 1327
Kanagasabapathy, P., and Sankaran, P. (see Sankaran, P.)
Kandil, M.S. New approach to analysis of polarised mho relays under close-up-fault conditions P 56
Kaplan, B.Z. Class of precise oscillators that generate prescribed waveforms P 195
Kasturi, R. Decoupled stability studies P 293
Kataoka, S., Kawashima, M., and Morisue, M. (see Kawashima, M.)
Kaul, B.L., and Nanda, J. (see Nanda, J.)
Kawamura, T., Sakabe, S., Iwamoto, M., and Nakanishi, Y. (see Sakabe, S.)
Kawashima, M., Kataoka, S., and Morisue, M. Transverse spreading of a high-field domain in a bulk negative conductance semiconductor: two-dimensional computer simulation and equivalent-circuit model P 826
Khurana, S.K., and Athani, V.V. (see Athani, V.V.)
King, S.Y., and Shun, D.H. (see Shun, D.H.)
Knowles, J.B. Comprehensive, yet computationally simple, direct digital control-system design technique P 1383
Korolkiewicz, E., Armstrong, R., and Kulesza, B.L.J. (see Armstrong, R.)
Kozelj, M. Reactive energy in a nonlinear network element P 1309
Krishnamurthy, K.A., Dubey, G.K., and Revankar, G.N. Convertor control with selective reduction of line harmonics P 141
Krishnamurthy, K.A., Revankar, G.N., and Dubey, G.K. A.C.-d.c. and a.c.-a.c. convertor control with selective reduction of line harmonics P 1269
Kulesza, B.L.J., Armstrong, R., and Korolkiewicz, E. (see Armstrong, R.)
Kuo, M.C.Y., and Ayiku, M.N.B. Synthesis of low-sensitivity optimal control in distributed parameter systems P 550
Kurimoto, A., Farish, O., and Tedford, D.J. Schlieren studies of impulse breakdown in air gaps P 767

L

Lakshiminarashima, C.S., Barrault, M.R., and Oliver, R. Factors influencing the formation and structure of fuse fulgurites P 391
Lamba, S.S., Rao, A.S., and Rao, S.-. (see Rao, A.S.)
Landers, E.U. Distribution of electrons and ions in a corona discharge P 1069
Latham, D.K. Address as Chairman of the IEE East Midland Power Section A 236
Lawler, K.J., and Wilcox, D.J. (see Wilcox, D.J.)
Lawrenson, P.J., and Finch, J.W. (see Finch, J.W.)
Lawson, W.G., Luoni, G., and Meschio, G. (see Luoni, G.)
Lee, Y.W., Broadway, A.R.W., and Chan, H.Y.F. (see Broadway, A.R.W.)
Lele, V.P., and Atre, S.R. (see Atre, S.R.)
Lewin, L. Spurious radiation from microstrip P 633
Lewis, C.P. Determination of the sinusoidal and dual-input describing functions for a class of single-and double-valued nonlinearities (Summary) P 73
Lewis, M., and Buckley, G.W. Sensed reconnection of induction-motor supplies D 890
Lilley, M.J., Stokes, R.W., Lockwood, M., Rash, N.M., and Spooner, E. (see Stokes, R.W.)
Linkens, D.A., and White, A.D. (see White, A.D.)
Lipczynski, R.T., and Daniels, A.R. (see Daniels, A.R.)
Little, J.J., and Wilkins, R. (see Wilkins, R.)
Lockwood, M., Stokes, R.W., Lilley, M.J., Rash, N.M., and Spooner, E. (see Stokes, R.W.)
Long, S.A., Shen, L.C., and Morel, P.B. Theory of the circular-disc printed-circuit antenna P 925
Lorch, H.O., Tayner, P.J., Penman, J., and Stoll, R.L. (see Tayner, P.J.)
Lowke, J.J., Ramakrishnan, S., and Stokes, A.D. (see Ramakrishnan, S.)
Lugton, W.T., Slamencka, E., and Rieder, W. (see Slamencka, E.)
Luoni, G., Meschio, G., and Lawson, W.G. Study of mechanical behaviour of cables in integral-pipe water-cooled systems D 1015

M

Macdiarmid, I.F., and Allnatt, J.W. Performance requirements for the transmission of the Pal coded signal P 571
McInnes, P.A., Hall, P.S., and Chambers, B. (see Hall, P.S.)
McLean, D. Gust-alleviation control systems for aircraft P 675
Magopian, R., Chiricozzi, E., and Nazarian, A. (see Chivicozzi, E.)
Mahapatra, G.B. New method of deriving equivalence conditions in linear diffusion equations P 345
Mahesh Kumar., and Das, B.N. Multi-aperture directional coupler using dissimilar transmission lines E 376
Majithia, J.C., and Pearce, R.C. (see Pearce, R.C.)
Makky, A.R.A.M., Williamson, A.C., and Issa, N.A.H. (see Williamson, A.C.)
Malik, J.N., and Rao, G.K. Economic load-dispatch solution using fast-decoupled load flow P 334
Manickam, K., and Srinivasan, R. Plugging of capacitor motors P 848
Marinčić, A.S., and Popovic, B.D. Radiation properties of microwave reflector antennas covered with a water film (Summary) P 933
Marmarelis, V.Z. Random versus pseudorandom test signals in nonlinear-system identification P 425
Martin, M.A., and Johns, A.T. (see Johns, A.T.)
Martinelli, G., Cecchi, E., Orlandi, G., and Salerno, M. (see Cecchi, E.)
Mastero, S., Germay, N., and Vroman, J. (see Germay, N.)
Mathew, M.A., and Nanda, J. (see Nanda, J.)
Matterson, A.J., Golten, J.W., and Ryley, A. (see Golten, A.J.)
Mattheys, R.L. Stability analysis via the extended matrix sign function P 241
Maurice, R.D.A. Developments in the Pal colour-television system: a unified system of tolerances P 581
May, C.A. Address as Chairman of the IEE Electronics Division A 9
Mehta, P., Thomson, T., and Un, W. Shorting-coil modulators P 60
Meisel, J., and Sen, A. (see Sen, A.)
Mellit, B., Goodman, C.J., and Arthurton, R.I.M. Simulator for studying operational and power-supply conditions in rapid-transit railways P 298
Mellitt, B., Goodman, C.J., and Arthurton, R.I.M. Simulation studies of energy saving with chopper control on the Jubilee line P 304
Meschio, G., Luoni, G., and Lawson, W.G. (see Luoni, G.)
Miller, D.J. Address as Chairman of the IEE Power Division A 33
Mills, V.O., Barker, H.A., and Noble, A.E. (see Barker, H.A.)
Minnett, H.C., and Thomas, B.MacA. (see Thomas, B.MacA.)
Mognaschi, E.R., Savini, A., and Parravicini, G.B. (see Savini, A.)
Morel, P.B., Long, S.A., and Shen, L.C. (see Long, S.A.)
Moreton, P.L., and Collinson, W.F.P. (see Collinson, W.F.P.)
Morisue, M., Kawashima, M., and Kataoka, S. (see Kawashima, M.)
Morgan, D.V., Rageh, M.S.I., Guile, A.E., and Hitchcock, A.H. (see Rageh, M.S.I.)
Moses, A.J., and Phillips, P.S. Effects of stacking methods on Epstein-square power-loss measurements D 260
Moses, A.J., and Basak, A. (see Basak, A.)
Mueller, G.S., and Nghiem, L.X. Design of a dynamic output-feedback compensator P 343
Muir, M.J., and Yee, H. (see Yee, H.)
Murthy, K.V.V., and Bedford, R.E. Relationship between modal matrix and state transformation matrices for 2-element-kind networks E 730
Mwenechanya, J.M., Chalmers, B.J., and Pacey, K. (see Chalmers, B.J.)

N

Nakanishi, Y., Sakabe, S., Iwamoto, M., and Kawamura, T. (see Sakabe, S.)
Nanda, J., and Kaul, B.L. Automatic generation control of an interconnected power system P 385
Nanda, J., and Mathew, M.A. Stability study of induction motors under variable-frequency modes in the presence of external inductors P 836
Nazarian, A., Chiricozzi, E., and Magopian, R. (see Chivicozzi, E.)
Ng, W-H. Bidirectional search for convolutional codes P 495
Ng, Wai-Hung. Decomposition technique for acquiring combined pseudorandom-noise signals P 811
Nghiem, L.X., and Mueller, G.S. (see Mueller, G.S.)
Nicholson, J.A., Arkell, C.A., and Hutson, R.B. (see Arkell, C.A.)
Nicholson, J.A., Arnaud, U.C., Burton, J., and Crockett, A.E. (see Arnaud, U.C.)
Niesten, J.G., Bakhuizen, A.J.C., and Thoone, M.L.G. (see Bakhuizen, A.J.C.)
Noble, A.E., Barker, H.A., and Mills, V.O. (see Barker, H.A.)

O

O'Kelly, D. Hysteresis motor with overexcitation and solid-state control P 288
Oakley, K.T., Ward, P.R., Care, P.N., and Rumley, D.H. Computer-aided design and management of electrical contracts P 915
Oliver, R., Lakshiminarashima, C.S., and Barrault, M.R. (see Lakshiminarashima, C.S.)
Orlandi, G., Cecchi, E., Martinelli, G., and Salerno, M. (see Cecchi, E.)
Owen, R.C., Irving, M.R., and Sterling, M.J.H. (see Irving, M.R.)
Owens, A.R., and Thomas, P.R. Interpolation of sampled-data filter output P 489
Owens, D.H., and Field, A.D. (see Field, A.D.)
Oxley, C.H., Brazil, T.J., Purcell, J.J., and Genner, R. Design and performance of J-band (12.4-18 GHz) ferrite microstrip circulators P 724

P

Pacey, K., Chalmers, B.J., and Mwenechanya, J.M. (see Chalmers, B.J.)
Paddison, E. Microelectronics and the power engineer P 648
Palanichamy, S., and Subbiah, V. (see Subbiah, V.)
Papadias, B.C., and Papadopoulos, D.P. (see Papadopoulos, D.P.)

Papadopoulos, D.P., and Papadias, B.C. Generalised computational method for reliability analysis of electric power installations P 37
Papageorgiou, C., and Freeman, E.M. (see Freeman, E.M.)
Paraskevopoulos, P.N. Decoupling controller design via exact model-matching techniques P 1285
Paraskevopoulos, P.N. Exact model matching of linear time-varying systems P 66
Parravicini, G.B., Savini, A., and Mognaschi, E.R. (see Savini, A.)
Pašič, Z., and Brasnic, J. Directional relay offering a continuously adjustable operating zone P 889
Patel, K., Ammar, A., and Yousuf, S. (see Ammar, A.)
Paul, P., and Reddy, C.N. Surface-discharge-initiated breakdown in solid dielectrics immersed in high-pressure gaseous mixtures P 361
Pearce, R.C., and Majithia, J.C. Performance results for an m.i.m.d. computer organisation using pipelined binary switches and cache memories P 1203
Peled, I., and Hida, R. Simple method of measuring active power in short time variations D 152
Pender, J.T., and Ritchie, W.M. (see Ritchie, W.M.)
Penman, J., and Hammond, P. (see Hammond, P.)
Penman, J., Tavner, P.J., and Hammond, P. (see Tavner, P.J.)
Penman, J., Tayner, P.J., Stoll, R.L., and Lorch, H.O. (see Tayner, P.J.)
Phillips, P.S., and Moses, A.J. (see Moses, A.J.)
Phung, V.A., and Gibbard, M.J. Practical implementation on a 5kVA synchronous generator of an adaptive excitation controller strategy for a wide range of operating conditions P 1009
Pickup, I.E.D., and Russell, A.P. (see Russell, A.P.)
Popović, B.D., and Marincic, A.S. (see Marincic, A.S.)
Pradhan, B.D., Sriraghaven, S.M., and Revankar, G.N. (see Sriraghaven, S.M.)
Prusty, S., and Sanyal, S.K. Some new solutions to ferroresonance problem in power system E 416
Purcell, J.J., Oxley, C.H., Brazil, T.J., and Genner, R. (see Oxley, C.H.)

R

Radford, M.F. Electronically scanned antenna systems (Commissioned IEE Review) P 1100
Rageh, M.S.I., Guile, A.E., Morgan, D.V., and Hitchcock, A.H. Initiation of arc cathode emission in Cu-O films P 81
Rajaraman, K.C. New 2-speed induction motors (Summary) P 957
Rajaraman, K.C. Winding grading of single-phase induction motors D 335
Ramakrishnan, S., Stokes, A.D., and Lowke, J.J. Turbulence in high-current arcs P 359
Rao, A.S., Lamba, S.S., and Rao, S.-. Routh-approximant time-domain reduced-order models for single-input/single-output systems P 1039
Rao, G.K., and Malik, J.N. (see Malik, J.N.)
Rao, G.P., and Srinivasan, T. Analysis and synthesis of dynamic systems containing time delays via block-pulse functions P 1064
Rao, J.S., and Das, B.N. Impedance characteristics of transverse slots in the ground plane of a stripline P 29
Rao, S.-., Rao, A.S., and Lamba, S.S. (see Rao, A.S.)
Rao, U.M., and Atherton, D.P. Analytic application of Tsypkin's method relay with hysteresis and dead zone D 700
Rao, U.M., and Bansal, S.C. (see Bansal, S.C.)
Rapos, M., and Calderwood, J.H. Influence of superimposed direct voltage on the a.c. dielectric properties of some dielectrics P 162
Rashaud, N.M., Stokes, R.W., Lilley, M.J., Lockwood, M., and Spooner, E. (see Stokes, R.W.)
Rathore, T.S., and Singhi, B.M. Realisation of the operator Z_a/Z_y P 727
Rathore, T.S., Singhi, B.M., and Somani, N.D. Asymmetrical lattice realisation of RC transfer immittances P 501
Reddy, C.N., and Paul, P. (see Paul, P.)
Reed, I.S., and Truong, T.K. Fast Mersenne-prime transforms for digital filtering P 433
Reed, I.S., and Truong, T.K. Simple proof of the continued fraction algorithm for decoding Reed-Solomon codes P 1318
Reeves, R. Air-cored foilwound inductors P 460
Renew, D.C., and Tavner, P.J. Axial flux variation in a synchronous generator during pole slipping P 535
Revankar, G.N., Krishnamurthy, K.A., and Dubey, G.K. (see Krishnamurthy, K.A.)
Revankar, G.N., Sriraghaven, S.M., and Pradhan, B.D. (see Sriraghaven, S.M.)
Rieder, W., Slamencka, E., and Lugton, W.T. (see Slamencka, E.)
Ritchie, W.M., and Pender, J.T. The modern transient network analyser and its role in analysis and design of electrical systems P 129
Roberts, J., and Chignell, R.J. (see Chignell, R.J.)
Roberts, J.B., and Gaster, M. Rapid estimation of spectra from irregularly sampled records P 92
Rodriguez, Vidal, M., Sanchez-Quesada, F., and Sancho-Ruiz, M. (see Sanchez-Quesada, F.)
Rogers, G.J., and Ioannides, A.C. Digital computation of frequency response P 244
Rombaut, C., Schoorens, H., and Seguier, G. Operation of a 3-phase a.c. thyristor-regulator feeding an R or RL or RC load (Summary) P 741
Roubiček, O., and Hajek, M.J. (see Hajek, M.J.)
Rowe, D.M. Thermoelectric power generation (Commissioned IEE Review) P 1113
Rowlands-Rees, E., and Binns, K.J. (see Binns, K.J.)
Rudnick, H., and Brameller, A. Transient security assessment methods P 135
Rumley, D.H., Oakley, K.T., Ward, P.R., and Care, P.N. (see Oakley, K.T.)
Russell, A.P., and Pickup, I.E.D. High-frequency instabilities in variable-reluctance stepping motors P 841
Russell, A.P., and Pickup, I.E.D. Parametric oscillatory motion in electromechanical devices P 269
Ryley, A., Golten, J.W., and Matterson, A.J. (see Golten, J.W.)

S

Safak, M., and Delogne, P.P. Optimisation of circular-aperture distributions for interference reduction P 717
Sakabe, S., Iwamoto, M., Nakanishi, Y., and Kawamura, T. Advanced theory of the delay of the commutating pole flux of a d.c. machine, and the improved machine that applies it P 857
Salerno, M., Cecchi, E., Martinelli, G., and Orlandi, G. (see Cecchi, E.)
Sanchez-Quesada, F., Sancho-Ruiz, M., and Rodriguez, Vidal, M. Monte-Carlo method for discrete inhomogeneous problems P 1400
Sancho-Ruiz, M., Sanchez-Quesada, F., and Rodriguez, Vidal, M. (see Sanchez-Quesada, F.)
Sandoz, D.J., and Wong, O. Design of hierarchical computer control systems for industrial plant. Pt. 1 - Modelling of the output dynamics of a multiple-effect evaporator P 1290
Sandoz, D.J., and Wong, O. Design of hierarchical computer control systems for industrial plant. Pt. 2 - Development of hierarchical controls for a multiple-effect evaporatpr P 1299
Sankaran, P., and Kanagasabapathy, P. Use of a voltage follower for the error reduction of a voltage transformer P 1272
Sankaran, P., and Kanagasabapathy, P. N.I.C. for error compensation of a current transformer P887
Sanyal, S.K., and Prusty, S. (see Prusty, S.)
Savini, A., Parravicini, G.B., and Mognaschi, E.R. Measurement of permittivity through pondermotive force determination P 905
Schoessow, E.P., and Bennett, J.C. (see Bennett, J.C.)
Schoorens, H., Rombaut, C., and Seguier, G. (see Rombaut, C.)
Sciavicco, L., Balestrino, A., and De Maria, G. (see Balestrino, A.)
Seguier, G., Rombaut, C., and Schoorens, H. (see Rombaut, C.)
Selves, J., Brotherton, W., Cox, H.N., and Frost, R.F. (see Brotherton, W.)
Sen, A., and Meisel, J. Transient stability augmentation with a bracking resistor using optimal aiming strategies P 1249
Sharples, K.O., Carpenter, C.J., and Djurovic, M. (see Carpenter, C.J.)
Shen, L.C., Long, S.A., and Morel, P.B. (see Long, S.A.)
Shepherd, W., Thomason, B., and Gallagher, P.J. (see Thomason, B.)
Shibuya, Y., Zoledziowski, S., and Calderwood, J.H. Light emission and deterioration in epoxy resin subjected to power frequency electric fields P 352
Shore, N.L., and Freris, L.L. Minicomputer online control of d.c. link convertors P 215
Shun, D.H., and King, S.Y. Effect of multilayer earth on wave propagation in overhead and underground transmission lines P 731
Simpson, R.R.S., Coulson, M.A., and Slater, R.D. (see Coulson, M.A.)
Singh, M.G., and Hassan, M.F. (see Hassan, M.F.)
Singh, P.N.P., and Gray, C.B. (see Gray, C.B.)
Singhi, B.M., and Rathore, T.S. (see Rathore, T.S.)
Singhi, B.M., Rathore, T.S., and Somani, N.D. (see Rathore, T.S.)
Skipper, D.J., Ball, E.H., and Endacott, J.D. (see Ball, E.H.)
Slamencka, E., Rieder, W., and Lugton, W.T. Synthetic testing: the present state P 1376
Slater, R.D., Coulson, M.A., and Simpson, R.R.S. (see Coulson, M.A.)
Slater, R.D., Fulton, N.N., and Wood, W.S. (see Fulton, N.N.)
Slattery, D.T., and Daniels, A.R. (see Daniels, A.R.)
Slattery, D.T., and Daniels, A.R. (see Daniels, A.R.)
Smith, A.M. Noise reduction in optical measurement systems P 935
Smith, J.R., and Stringfellow, D.C. Numerical determination of a performance index for improved system response P 698
Smith, J.R., and Binns, K.J. (see Binns, K.J.)
Soliman, A.M. Realisation of frequency-dependent negative resistance circuits using two capacitors and a single current conveyor P 1336
Somani, N.D., Rathore, T.S., and Singhi, B.M. (see Rathore, T.S.)
Spooner, E., Stokes, R.W., Lilley, M.J., Lockwood, M., and Rash, N.M. (see Stokes, R.W.)
Spracklen, C.T., and Jones, T.B. (see Jones, T.B.)
Sproson, W.H. Pal System 1 phosphor primaries: the present position P 603
Srinivasan, R., and Manickam, K. (see Manickam, K.)
Srinivasan, T., and Rao, G.P. (see Rao, G.P.)
Sriraghaven, S.M., Pradham, B.D., and Revankar, G.N. Multistage pulse-width-modulated inverter systems for generating stepped-voltage waveforms P 529
Staniforth, M.J.D., and Gott, G.F. (see Gott, G.F.)
Stansfield, E.V. Impedance formulation of l.p.c. using a lossy vocal tract and lip termination P 483
Steele, R., and Xydeas, C.S. (see Xydeas, C.S.)
Steinkoller, M., and Yair, A. (see Yair, A.)
Stephenson, J.M., and Ula, A.H.M.S. Dynamic-stability analysis of synchronous machines including damper circuits, automatic voltage regulator and governor D 886
Sterling, M.J.H., and Coulbeck, B. (see Coulbeck, B.)
Sterling, M.J.H., Irving, M.R., and Owen, R.C. (see Irving, M.R.)
Stokes, A.D., Ramakrishnan, S., and Lowke, J.J. (see Ramakrishnan, S.)
Stokes, R.W., Lilley, M.J., Lockwood, M., Rash, N.M., and Spooner, E. Tubular-axle induction motors for railway traction P 959
Stoll, R.L., Tayner, P.J., Penman, J., and Lorch, H.O. (see Tayner, P.J.)
Stott, J.H., and Devereux, V.G. (see Devereux, V.G.)
Stringfellow, D.C., and Smith, J.R. (see Smith, J.R.)
Sturge, G.H., and Tingey, P.A. The Pal receiver: developments and progress P 599
Subbiah, V., and Palanichamy, S. Investigations on operation of fullycontrolled thyristor convertors P 58

T

Tavner, P.J., Hammond, P., and Penman, J. Contribution to the study of leakage fields at the ends of rotating electrical machines P 1339
Tavner, P.J., and Renew, D.C. (see Renew, D.C.)
Tayner, P.J., Penman, J., Stoll, R.L., and Lorch, H.O. Influence of winding design on the axial flux in laminated-stator cores P 948
Tedford, D.J., Kurimoto, A., and Farish, O. (see Kurimoto, A.)
Thomas, B.MacA., and Minnett, H.C. Modes of propagation in cylindrical waveguides with anisotropic walls P 929
Thomas, P.R., and Owens, A.R. (see Owens, A.R.)
Thomason, B., Gallagher, P.J., and Shepherd, W. Sensed reconnection of induction-motor supplies D 890
Thomson, T., Mehta, P., and Un, W.C. (see Mehta, P.)
Thoone, M.L.G., Bakhuizen, A.J.C., and Niesten, J.G. (see Bakhuizen, A.J.C.)
Tibble, D.V., and Clarke, R.H. (see Clarke, R.H.)
Tingey, P.A., and Sturge, G.H. (see Sturge, G.H.)
Treciokas, R. Application of forward-error correction to a Rayleigh fading h.f. communication channel P 173
Truong, T.K., and Reed, I.S. (see Reed, I.S.)
Tslaf, A. Arc discharge between thermally overloaded slot-channel walls P 257
Turner, L.F., and Wright, L.E. (see Wright, L.E.)

U

Ula, A.H.M.S., and Stephenson, J.M. (see Stephenson, J.M.)
Un, W.C., Mehta, P., and Thomson, T. (see Mehta, P.)

Urban, C.E., and Bowd, D.M. Home video recording: a review P 619
Urquhart, E.B., and Williamson, A.C. (see Williamson, A.C.)
Urwin, R.J., and Gardner, G.E., (see Gardner, G.E.)

V

van Niekerk, H.R., Eriksson, A.J., Bourn, G.W., and van Zyl, B.B. (see Eriksson, A.J.)
van Zyl, B.B., Eriksson, A.J., van Niekerk, H.R., and Bourn, G.W. (see Eriksson, A.J.)
Varashyndharosoth, B., and Watson, D.B. Variable-speed single-phase linear induction motor P 1274
Varasundharosoth, B., and Watson, D.B. Variable-speed single-phase linear induction motor P 1274
Vigoureux, P. Radiation pressure P 709
Voles, R. Image registration using the likelihood ratio P 686
Voles, R. Radar target imaging by rotation about two axes P 919
Voles, R. Simple-null-steering antenna for frequency-agile radars P 623
Vroman, J., Germay, N., and Mastero, S. (see Germay, N.)

W

Wale, G.D., and Hemmings, R.F. (see Hemmings, R.F.)
Walker, C., Auckland, D.W., and Cooper, R. (see Auckland, D.W.)
Walker, P.A.W., and Abdalla, O.H. Discrete control of an a.c. turbogenerator by output feedback P 1031
Ward, P.R., Oakley, K.T., Care, P.N., and Rumley, D.H. (see Oakley, K.T.)
Warner, F.L., and Harris, I.A. (see Harris, I.A.)
Watson, D.B., and Arrillaga, J. (see Arrillaga, J.)
Watson, D.B., and Varashyndharosoth, B. (see Varashyndharosoth, B.)
Watson, D.B., and Varasundharosoth, B. (see Varasundharosoth, B.)
Watson, P.A., and Humpleman, R.J. (see Humpleman, R.J.)
Watts, M.P., and Heylen, A.E.D. Stepped-sideways Townsend discharge movement in a crossed magnetic field P 563
Wedepohl, L.M., and Efthymiadis, A.E. Wave propagation in transmission lines over lossy ground: a new, complete field solution P 505
Wedepohl, L.M., and Efthymiadis, A.E. (see Efthymiadis, A.E.)
Wells, H.J. Digital-filtering facility for computer Processing (Computer-program description) A 922
Weston, G.F. Alphanumeric display (Commissioned IEE Review) P 1077
White, A.D., and Linkens, D.A. Adaptive Kalman filter for marine navigation and gravity measurement P 1311
Wiggin, F.T.F. Experience at Edmonton (GLC) of generating electricity using refuse as fuel (Summary) P 169
Wilcox, D.J., and Lawler, K.J. Implementation of nonhomogeneous theory in the transient analysis of crossbonded cable systems P 993
Wilcox, D.J., and Lawler, K.J. Transient phenomena in crossbonded cable systems: analytical results P 999
Wilkins, R., and Little, J.J. Solution of electrostatic field problems using Sander's function P 909
Williams, B.W. State-space computer triac model P 413
Williamson, A.C. Measurement of rotor temperatures of a 500 MW turnine generator with unbalanced loading D 1259
Williamson, A.C., Issa, N.A.H., and Makky, A.R.A.M. Variable-speed inverter-fed synchronous motor employing natural commutation P 114
Williamson, A.C., and Urquhart, E.B. Analysis of the losses in a turbine-generator rotor caused by unbalanced loading D 1259
Williamson, S., and Breese, P. Evaluation of the r eluc P 831
Williamson, S., and Breese, P. Evaluation of the Reluctance-augmentation principle in shaded-pole motors P 831
Wimbush, J.P. Address as Chairman of the IEE South-East Scotland Sub-Centre A 55
Wong, O., and Sandoz, D.J. (see Sandoz, D.J.)
Wood, W.S., Fulton, N.N., and Slater, R.D. (see Fulton, N.N.)
Wood, W.S., Fulton, N.N., and Slater, R.D. (see Fulton, N.N.)
Woods, D. Application of 4 port coaxial junction to r.f.immittance standardisation and measurements P 715
Woods, D. Multiport network analysis by matrix renormalisation: extension to four ports E 376
Woods, D. Multiport network analysis by matrix renormalisation: extension to 5- and 6-ports (Summary) P 1217
Wouterse, J.H., and Bakhuizen, A.J.C. (see Bakhuizen, A.J.C.)
Wright, L.E., and Turner, L.F. Simplified decoders for projective-geometry codes P 365
Wu, K.Y.K., and Freeman, E.M. (see Freeman, E.M.)

X

Xydeas, C.S., and Steele, R. Dynamic ratio quantiser P 25

Y

Yacamini, R., and de Oliveira, J.C. Harmonics produced by direct current in convertor transformers P 873
Yair, A., and Steinkoller, M. New approach to design of ironcored inductances carrying direct current P 1006
Yee, H., and Muir, M.J. Transient stability region of synchronous generator with saturable exciter P 943
Young, S.J., and Fallside, F. (see Fallside, F.)
Yousuf, S., Ammar, A., and Patel, K. (see Ammar, A.)

Z

Zoledziowski, S., Shibuya, Y., and Calderwood, J.H. (see Shibuya, Y.)

Subject index

A

A.C.-d.c. and a.c.-a.c. convertor control with selective reduction of line harmonics. K.A.Krishnamurthy, G.N.Revankar and G.K.Dubey P 1269
A.C.-d.c. load flows with realistic representation of the convertor plant. J.Arrillaga and P.Bodger P 41
A.C. turbogenerators, digital excitation control of, using a dedicated microprocessor. P.J.Burrows and A.R.Daniels P 237
A.M. receiver, response of an, to a quasisynchronous multi-a.m.-transmitter field. M.O.Al-Nuaimi P 190
Absorption of water by electrically stressed polyethylene. D.W.Auckland, R.Cooper and C.Walker P 776
Actuator, wide-angle limited-motion rotary, performance prediction of a. C.Dawson and H.R.Bolton P 895
Adaptive equalisers, possibility of automatically acquiring the optimum adjusting step in. E.Cecchi, G.Martinelli, G.Orlandi and M.Salerno P 626
Adaptive excitation controller strategy, practical implementation on a 5kVA synchronous generator of an, for a wide range of operating conditions. V.A.Phung and M.J.Gibbard P 1009
Adaptive Kalman filter for marine navigation and gravity measurement. A.D.White and D.A.Linkens P 1311
Advanced theory of the delay of the commutating pole flux of a d.c. machine, and the improved machine that applies it. S.Sakabe, M.Iwamoto, Y.Nakanishi and T.Kawamura P 857
Air-blast interrupter, arc stability and current chopping in an. G.E.Gardner and R.J.Urwin D 1027
Air-cored foilwound inductors. R.Reeves P 460
Aircraft, Gust-alleviation control systems for. D.McLean P 675
Alphanumeric display. G.F.Weston (Commissioned IEE Review) P 1077
Analysis and synthesis of dynamic systems containing time delays via block-pulse functions. G.P.Rao and T.Srinivasan P 1064
Analysis, multiport network, by matrix renormalisation: extension to four ports. D.Woods E 376
Analysis of modulation processes in power convertors (Summary). A.Balestrino, G.De Maria and L.Sciavicco P 411
Analysis of the losses in a turbine-generator rotor caused by unbalanced loading. A.C.Williamson and E.B.Urquhart D 1259
Analytic application of Tsypkin's method relay with hysteresis and dead zone. S.R.Atre and V.P.Lele D 700
Antenna, circular-disc printed-circuit, theory of the. S.A.Long, L.C.Shen and P.B.Morel P 926
Antenna near-field/ far-field transformation using a plane-wave-synthesis technique. J.C.Bennett and E.P.Schoessow P 179
Antenna, simple null-steering, for frequency-agile radars. R.Voles P 623
Antennas, electrically short monopole, with dielectric or ferrite coatings. J.R.James and A.Henderson P 793
Antennas, h.f. Yagi, microwave modelling of, over imperfectly-conducting ground. P.S.Hall, B.Chambers and P.A.Mcinnes P 261
Application of 4-port coaxial junction to r.f.immittance standardisation and measurements. D.Woods P 715
Application of forward-error correction to a Rayleigh fading h.f. communication channel. R.Treciokas P 173
Application of power transistors to polyphase regenerative power convertors. A.R.Daniels and D.T.Slattery P 643
Arc-cathode craters on copper at high currents and with reduced gas pressures. A.E.Guile and A.H.Hitchcock P 251
ARC cathode emission, initiation of, in Cu_2O films. M.S.I.Rageh, A.E.Guile, D.V.Morgan and A.H.Hitchcock P 81
Arc discharge between thermally overloaded slot-channel walls. A.Tslaf P 257
Arc instability and current chopping in an air-blast interrupter. G.E.Gardner and R.J.Urwin D 1027
Arcs, SF_6, optically thick, simple convection-loss dominated model for. D.R.Airey P 770
Array, a nonuniformly-spaced planar, electronic scanning antenna using a. F.Hodjat P 185
Asymmetrical fault analysis using the bus impedance matrix (Summary). C.B.Gray and P.N.P.Singh P 671
Asymmetrical lattice realisation of RC transfer immittances. T.S.Rathore, B.M.Singhi and N.D.Somani P 501
Automatic generation control of an interconnected power system. J.Nanda and B.L.Kaul P 385
Automatic insulator washing system to prevent flashover due to pollution. R.J.Cakebread, H.J.Brown and R.B.Dawkins P 1363
Axial flux variation in a synchronous generator during pole slipping. D.C.Renew and P.J.Tavner P 535

B

Bidirectional search for convolutional codes. W-H.Ng P 495
Boolean functions, detection of totally symmetric, with the aid of decimal combination tables. A.K.Halder P 1199
Boolean functions, n-variable, grouping table for the minimisation of. A.K.Halder P 474
Bracking resistor, transient stability augmentation with a, using optimal aiming strategies. A.Sen and J.Meisel P 1249
Breakdown, impulse, Schlieren studies of, in air gaps. A.Kurimoto, O.Farish and D.J.Tedford P 767
Breakdown, surface-discharge-initiated, in solid dielectrics immersed in high-pressure gaseous mixtures. P.Paul and C.N.Reddy P 361
Breakdown voltage of air, effect of pollution on the. M.L.El-Sayed, E.M.El-Refaie and M.M.Awad P 714
Bridges, fully controlled regenerative, with half-controlled characteristics. W.Farrer and D.F.Andrew P 109
Brushless excitation system for a class of variable-speed synchronous motors. B.J.Chalmers, J.M.Mwenechanya and K.Pacey P 754

C

Cable system, 400 kVA, design and construction of the, for the Severn Tunnel. C.A.Arkell, W.E.Blake, S.D.R.Brealey, K.J.H.Hacke and G.E.A.Hance D 1015
Cable system, 400 kVA integral pipe-cooled, develoPment and trials of the. U.C.Arnaud, J.Burton, A.E.Crockett and J.A.Nicholson D 1015
Cable systems, crossbonded, implementation of nonhonogeneous theory in the transient analysis of. D.J.Wilcox and K.J.Lawler P 993
Cable systems, crossbonded, transient phenomena in,: analytical results. D.J.Wilcox and K.J.Lawler P 999
Cable systems, forces-cooled, UK requirements and future prospects for. E.H.Ball, J.D.Endacott and D.J.Skipper D 1021
Cable systems, internally, oil-cooled, development of. C.A.Arkell, R.B.Hutson and J.A.Nicholson D 1021
Cables, buried, evaluation of earth-surface thermal gradients due to. P.Y..Foo P 531
Cables, study of mechanical behaviour of, in integral-pipe water-cooled systems. G.Luoni, G.Meschio and W.G.Lawson D 1015

Cache memories, performance results for an mli.m.d. computer organisation using pipelined binary switches and. R.C.Pearce and J.C.Majithia P 1203
Calculation and measurement of the earth impedance of an e.h.v. substation. J.R.Alderton, P.C.Anderson and R.J.Cakebread P 1367
Calculation of eddy currents by dual energy methods. P.Hammond and J.Penman P 701
Canonical form for the reduction of linear scalar systems. A.D.Field and D.H.Owens P 337
Cathode emission, arc, initiation of, in Cu_2O films. M.S.I.Rageh, A.E.Guile, D.V.Morgan and A.H.Hitchcock P 81
Characteristics of interfering signals in aeronautical h.f. voice channels. G.F.Gott and M.J.D.Staniforth P 1208
Chopper control, simulation studies of energy saving with, on the Jubilee line. B.Mellitt, C.J.Goodman and R.I.M.Arthurton P 304
Circuit breakers, multi-unit, performance and testing of, switching low inductive currents. G.E.Gardner and R.J.Urwin P 230
Class of precise oscillators that generate prescribed waveforms. B.Z.Kaplan P 195
Codes, convolutional, bidirectional search for. W-H.Ng P 495
Codes, decoding Reed-Solomon, simple proof of the continued fraction algorithm for. I.S.Reed and T.K.Truong P 1318
Codes, linear, improvement on Varshamov-Gilbert lower bound on minimum Hamming distance of. A.Hashim P 104
Colour signals, Pal, sub-Nyquist sampling of Pal, digital video. V.G.Devereux and J.H.Stott P 779
Colour-television signals, pal. timing errors in. S.M.Edwardson P 586
Colour-television system:, developments in the, a unified system of tolerances. R.D.A.Maurice P 581
Commucation, thyristor-assisted, electronic-firing system for machines with. A.W.Bingham and R.E.Colver P 673
Communication channel, Rayleigh fading h.f., application of forward-error correction to a. R.Treciokas P 173
Communications for the power industry. H.C.A.Hankins A 54
Commutation, variable-speed inverter-fed synchronous motor employing natural. A.C.Williamson, N.A.H.Issa and A.R.A.M.Makky P.114
Compact resonant slot for waveguide arrays. R.J.Chignell and J.Roberts P 1213
Comprehensive, yet computationally simple, direct digital control-system design technique. J.B.Knowles P 1383
Computational method, generalised, for reliability analysis of electric power installations. D.P.Papadopoulos and B.C.Papadias P 37
Computer-aided design and management of electrical contracts. K.T.Oakley, P.R.Ward, P.N.Care and D.H.Rumley P 915
Computer-aided design,synthesis of inductive displacement-measuring system using. A.L.Hugill P 417
Computer control systems, hierarchical, design of, for industrial plant. Pt. 1 - Modelling, of the output dynamics of a multiple-effect evaporator. D.J.Sandoz and O.Wong P 1290
Computer control systems, hierarchical, design of, for industrial plant. Pt. 2 - Development of hierarchical controls for a multiple effect evaporator. D.J.Sandoz and O.Wong P 1299
Computer organisation, performance results for an m.i.m.d., using pipelined binary switches and cache memories. R.C.Pearce and J.C.Majithia P 1203
Computer processing, digital-filtering facility for. H.J.Wells (Computer-program description) A 922
Conducting surface corrugations for multipath interference suppression. E.V.Jull and J.W.Heath P 1321
Contribution to the study of leakage fields at the ends of rotating electrical machines. P.J.Tavner, P.Hammond and J.Penman P 1339
Control and operation of the UK electricity supply system: an account of its development. F.D.Boardman A 61
Control, automatic generation, of an interconnected power system. J.Nanda and B.L.Kaul P 385
Control, centralised, use of London's electricity supply system for. A.J.Baggott, B.E.Eyre, G.Fielding and F.M.Gray P 311
Control, convertor, with selective reduction of line harmonics. K.A.Krishnamurthy, G.K.Dubey and G.N.Revankar P 141
Control, minicomputer online, of d.c. link convertors. N.L.Shore and L.L.Freris P 215
Control of resonant vibration in a spring-fatigue-testing instrument. H.A.Barker, A.E.Noble and V.O.Mills P 1045
Control, optimised, of water distribution systems. B.Coulbeck and M.J.H.Sterling P 1039
Control systems, Gust-alleviation, for aircraft. D.McLean P 675
Controller design, decoupling, via exact model-matching techniques. P.N.Paraskevopoulos P 1285
Convertor control with selective reduction of line harmonics. K.A.Krishnamurthy, G.K.Dubey and G.N.Revankar P 141
Convertor, fast changing four quadrant. A.M.Ali D 765
Convertor plant, a.c.-d.c. load flows with realistic representation of the. J.Arrillaga and P.Bodger P 41
Convertor transformers, harmonics produced by direct current in. R.Yacamini and J.C.de Oliveira P 873
Convertors, d.c. link, minicomputer online control of. N.L.Shore and L.L.Freris P 215
Cooled, -water systems, integral-pipe, study of mechanical behaviour of cables in. G.Luoni, G.Meschio and W.G.Lawson D 1015
Copper, arc-cathode craters on, at high currents and with reduced gas pressures. A.E.Guile and A.H.Hitchcock P 251
Corona discharge, distribution of electrons and ions in a. E.U.Landers P 1069
Corona, negative point-plane, some characteristics of. P.S.Gardiner P 467
Correlation analysis, identification of a class of f nonlinear systems using. S.A.Billings and S.Y.Fakhouri P 691
Correlator, low-frequency, using a bucket-brigade analogue delay line. P.C.Fannin E 108
Coupled windings, improvements in high-performance lowpass filters using. N.V.Hurley P 865
Coupler, multi-aperture directional, using dissimilar transmission lines. Mahesh Kumar. and B.N.Das E 376
Crossed magnetic field, stepped-sideways Townsend dischcarge movement in a. M.P.Watts and A.E.D.Heylen P 563
Crosstalk in multiplex systems using Walsh functions. M.J.Carey and A.G.Constantinides P 1329
Current arcs, high-, turbulence in. S.Ramakrishnan, A.D.Stokes and J.J.Lowke P 359
Current distribution and leakage impedance of various types of foil-wound transformers. M.M.El-Missiry P 987
Current shunts, coaxial, sinusoidal and transient response of. E.M.Freeman and K.Y.K.Wu P 465
Current transformer, N.I.C. for error compensation of a. P.Sankaran and P.Kanagasalsapathy P 888

D

D.C. machine, advanced theory of the delay of the commutating pole flux of a, and the improved machine that applies it. S.Sakabe, M.Iwamoto, Y.Nakanishi and T.Kawamura P 857
Damping systems, hydrogenerator, parameters and losses of. E.Chivicozzi, R.Magopian and A.Nazarian P 853
Decoders, simplified, for projective-geometry codes. L.E.Wright and L.F.Turner P 365
Decoding Reed-Solomon codes, simple proof of the continued fraction algorithm for. I.S.Reed and T.K.Truong P 1318
Decomposition technique for acquiring combined pseudorandom-noise signals. Wai-Hung.Ng P 811
Decoupled stability studies. R.Kasturi P 293
Decoupling controller design via exact model-matching techniques. P.N.Paraskevopoulos P 1285
Delay line, bucket-brigade analogue, log-frequency correlator using a. P.C.Fannin E 108
Delays, dynamic systems containing time, analysis and synthesis of, via block-pulse functions. G.P.Rao and T.Srinivasan P 1064
Design and construction of the 400 kVA cable svetem for the Severn Tunnel. C.A.Arkell, W.E.Blake, S.D.R.Brealey, K.J.H.Hacke and G.E.A.Hance D 1015
Design and performance of J-band (12.4-18 GHz) ferrite microstrip circulators. C.H.Oxley, T.J.Brazil, J.J.Purcell and R.Genner P 724
Design of a dynamic output-feedback compensator. G.S.Mueller and L.X.Nghiem P 343
Design of fail-safe electromagnetic trainspeed sensor. R.J.Hill P 1239
Design of hierarchical computer control systems for industrial plant. Pt. 1 - Modelling of the output dynamics of a multiple-effect evaporator. D.J.Sandoz and O.Wong P 1290
Design of hierarchical computer control systems for industrial plant. Pt. 2 - Development of hierarchical controls for a multiple effect evaporator. D.J.Sandoz and O.Wong P 1299
Design of stochastic optimal feedback control systems. M.J.Grimble P 1275
Design optimisation of starting windings for 1-phase induction motors. N.N.Fulton, R.D.Slater and W.S.Wood P 1219
Detection, inductive, of buried services. E.B.Glennie P 14
Detection of totally symmetric Boolean functions with the aid of decimal combination tables. A.K.Halder P 1199
Determination of the sinusoidal and dual-input describing functions for a class of single-and double-valued nonlinearities (Summary). C.P.Lewis P 73
Development and trials of the 400 kVA integral pipe-cooled cable system. U.C.Arnaud, J.Burton, A.E.Crockett and J.A.Nicholson D 1015
Development of internally oil-cooled cable systems. C.A.Arkell, R.B.Hutson and J.A.Nicholson D 1021
Developments in techniques for simulating faults in e.h.v. transmission systems. A.T.Johns and M.M.T.El-Kateb P 221
Developments in the Pal colour-television system: a unified system of tolerances. R.D.A.Maurice P 581
Dielectric, electrically short monopole antennas with, or ferrite coatings. J.R.James and A.Henderson P 793
Diffusion equations, linear, new method of deriving equivalence conditions in. G.B.Mahapatra P 345
Diffusion of moisture through power transformer insulation. A.F.Howe P 978
Digital computation of frequency response. G.J.Rogers and A.C.Ioannides P 244
Digital excitation control of a.c. turbogenerators using a dedicated microprocessor. P.J.Burrows and A.R.Daniels P 237
Digital-filtering facility for computer Processing. H.J.Wells (Computer-program description) A 922
Digital firing-angle circuit for thyristor motor controllers. A.R.Daniels and R.T.Lipczynski P 245
Digital form, recording Pal signals in. J.L.E.Baldwin P 606
Digital signals, baseband, two-way transmission of. E.V.Jones and K.W.Cattermole P 815
Digital video: sub-Nyquist sampling of Pal colour signals. V.G.Devereux and J.H.Stott P 779
Direct digital control-system design technique, comprehensive, yet computationally simple. J.B.Knowles P 1383
Directional relay offering a continuously adjustable operating zone. Z.Pasic and J.Brasnic P 889
Disc-motor designs, novel. J.Eastham and P.D.Evans P 416
Discharge, corona, distribution of electrons and ions in a. E.U.Landers P 1069
Discrete control of an a.c. turbogenerator by output feedback. P.A.W.Walker and O.H.Abdalla P 1031
Discrete signals, frequency-response estimates using, and the radix-2 f.f.t.. J.W.Golten P 891
Displacement-measuring system, inductive, synthesis of, using computer-aided design. A.L.Hugill P 417
Distance protection performance during simultaneous faults. V.Cook D 761
Distortion, public-supply-system, and unbalance from single-phase a.c. traction. D.C.Howroyd P 517
Distributed parameter systems, synthesis of low-sensitivity optimal control in. M.C.Y.Kuo and M.N.B.Ayiku P 550
Distributed processes, controlled, Pt. 2: Wider application of multipass systems theory. J.B.Edwards P 453
Distribution networks, telecontrol systems for electricity transmission and. J.P.Wimbush A 55
Distribution of electrons and ions in a corona discharge. E.U.Landers P 1069
Distribution system voltage studies using simulation techniques (Summary). E.Economakos P 151
Diversity, space, nature of, in microwave communications via geostationary satellites: a review. J.E.Allnutt P 369
Dtochastic optimal feedback control systems, design of. M.J.Grimble P 1275
Dynamic ratio quantiser. C.S.Xydeas and R.Steel P 25
Dynamic-stability analysis of synchronous machines including damper circuits, automatic voltage regulator and governor. J.M.Stephenson and A.H.M.S.Ula D 886
Dynchronous motors, hybrid permanent-magnet. K.J.Binns, W.R.Barnard and M.A.Jabbar P 203

E

Economic load-dispatch solution using fast-decoupled load flow. J.N.Malik and G.K.Rao P 334
Eddy currents, calculation of, by dual energy methods. P.Hammond and J.Penman P 701
Education, the growth of electronics and its implications for. F.A.Benson A 75
Effect of multilayer earth on wave propagation in overhead and underground transmission lines. D.H.Shun and S.Y.King P 731
Effect of pollution on the breakdown voltage of air. M.L.El-Sayed, E.M.El-Refaie and M.M.Awad P 714
Effects of stacking methods on Epstein-square power-loss measurements. A.J.Moses and P.S.Phillips D 260

Electric train heating with diesel locomotives. D.F.Andrew D 47
Electrical breakdown of nitrogen at high electric fields. R.Coates, J.Dutton and F.M.Harris P 558
Electrical machines, rotating, contribution to the study of leakage fields at the ends of. P.J.Tavner, P.Hammond and J.Penman P 1339
Electrically short monopole antennas with dielectric or ferrite coatings. J.R.James and A.Henderson P 793
Electro-optical alignment technique, novel (Summary). A.H.Falkner P 71
Electromagnetic field diffusion in ferromagnetic materials. B.Aldefeld P 278
Electronically scanned antenna systems. M.F.Radford P 1100
Electronic-firing system for machines with thyristor-assisted commutation. A.W.Bingham and R.E.Colyer P 673
Electronic scanning antenna using a nonuniformly-spaced planar array. F.Hodjat P 185
Electronics, the growth of, and its implications for education. F.A.Benson A 75
Electrostatic field problems, solution of, using Sander's function. R.Wilkins and J.J.Little P 909
Encryption of signals using data transpositions (Summary). S.C.Kak P 1327
Epoxy resin, light emission and deterioration in, subjected to power frequency electric fields. Y.Shibuya, S.Zoledziowski and J.H.Calderwood P 352
Equalisers, adaptive, possibility of automatically acquiring the optimal adjusting step in. E.Cecchi, G.Martinelli, G.Orlandi and M.Salerno P 626
Equivalent-circuit model, two-dimensional computer simulation and, transverse spreading of a high-field domain in a bulk negative-conductance semiconductor. M.Kawashima P 826
Error compensation, N.I.C. for, of a current transformer. P.Sankaran and P.Kanagasalsapathy P 888
Error correction, forward-, application of, to a Rayleigh fading h.f. communication channel. R.Treciokas P 173
Estimation and simulation of nonlinear models of wastewater-treatment systems, minimum variance systems. C.J.Harris P 441
Estimation, linear-, solution of the, problem in the s-domain. M.J.Grimble P 541
Euromeas-77: Precise electrical measurement (Contents of IEE Conference Publication 152) P 363
Euromeas-77: Precise electrical measurement (Contents of IEE Conference Publication 152) P 363
Evaluation of earth-surface thermal gradients due to buried cables. P.Y..Foo P 531
Evaluation of p.w.m. inverter schemes. S.C.Bansal and U.M.Rao P 328
Evaluation of the Reluctance-augmentation principle in shaded-pole motors. S.Williamson and P.Breese P 831
Exact model matching of linear time-varying systems. P.N.Paraskevopoulos P 66
Excitation system, brushless, for a class of variable-speed synchronous motors. B.J.Chalmers, J.M.Mwenechanya and K.Pacey P 754
Exciter, saturable, transient stability region of synchronous generator with. H.Yee and M.J.Muir P 943
Experience at Edmonton (GLC) of generating electricity using refuse as fuel (Summary). F.T.F.Wiggin P 169

F

F.F.T., radix-2, frequency-response estimates using discrete signals and the. J.W.Golten P 891
Factors influencing the formation and structure of fuse fulgurites. C.S.Lakshiminarashima, M.R.Barrault and R.Oliver P 391
Fading h.f. communication channel, Rayleigh, application of forward-error correction to. R.Treciokas P 173
Fast changing four quadrant convertor. A.M.Ali D 765
Fast-decoupled three-phase load flow. J.Arrillaga and B.J.Harker P 734
Fast Mersenne-prime transforms for digital filtering. I.S.Reed and T.K.Truong P 433
Fatigue-testing instrument, spring-, control of resonant vibration in a. H.A.Barker, A.E.Noble and V.O.Mills P 1045
Fault analysis, asymmetrical, using the bus impedance matrix (Summary). C.B.Gray and P.N.P.Singh P 671
Feedback, output, discrete control of an a.c. turbogenerator by. P.A.W.Walker and O.H.Abdalla P 1031
Ferrite coatings, electrically short monopole antennas with dielectric or. J.R.James and A.Henderson P 793
Ferrite microstrip circulators, design and performance of J-band (12.4-18 GHz). C.H.Oxley, T.J.Brazil, J.J.Purcell and R.Genner P 724
Ferromagnetic materials, electromagnetic field diffusion in. B.Aldefeld P 278
Ferroresonance, single-phase, on a 150/$\sqrt{3}$ kV voltage transformer: comparison of measured and computed results. N.Germay, S.Mastero and J.Vroman P 533
Field-effect transistors, frequency multiplication using. A.Ammar, S.Yousuf and K.Patel P 267
Field trials of 400 kVA internally oil-cooled cables. W.Brotherton, H.N.Cox, R.F.Frost and J.Selves D 1021
Films, Cu-O, initiation of arc cathode emission in. M.S.I.Rageh, A.E.Guile, D.V.Morgan and A.H.Hitchcock P 81
Filter output, sampled-data, interpolation of. A.R.Owens and P.R.Thomas P 489
Flashover due to pollution, automatic insulator washing system to prevent. R.J.Cakebread, H.J.Brown and R.B.Dawkins P 1363
Flux, axial, influence of winding design on the, in laminated-stator cores. P.J.Tayner, J.Penman, R.L.Stoll and H.O.Lorch P 948
Flux, commutating pole, advanced theory of the delay of the, of a d.c. machine, and the improved machine that applies it. S.Sakabe, M.Iwamoto, Y.Nakanishi and T.Kawamura P 857
Flux, main, radia tooth-ripple forces in induction motors due to the. K.J.Binns and E.Rowlands-Rees P 1227
Flux penetration, theory of, into laminated iron and associated losses. C.J.Carpenter D 1265
Flux variation, axial, in a synchronous generator during pole slipping. D.C.Renew and P.J.Tavner P 535
Foil-wound inductors, air-cored. R.Reeves P 460
Fourier transforms, spatial,: a new view of end effects in linear induction motors. E.M.Freeman and C.Papageorgiou P 747
Frequency analysis with constant fractional resolution. R.Benjamin P 502
Frequency control, load-, multilevel, of interconnected power systems. N.N.Bengiamin and W.C.Chan P 521
Frequency-dependent negative resistance circuits, realisation of, using two capacitors and a single current conveyor. A.M.Soliman P 1336
Frequency multiplication using field-effect transistors. A.Ammar, S.Yousuf and K.Patel P 267
Frequency response, digital computation of. G.J.Rogers and A.C.Ioannides P 244
Frequency-response estimated using discrete signals and the radix-2 f.f.t.. J.W.Golten, A.Ryley and A.J.Matterson P 891
Fully controlled refenerative bridges with half-controlled characteristics. W.Farrer and D.F.Andrew P 109
Fundamental digital approach to the distance protection of e.h.v. transmission lines. A.T.Johns and M.A.Martin P 377
Fuse fulgurites, factors influencing the formation and structure of. C.S.Lakshiminarashima, M.R.Barrault and R.Oliver P 391

G

Gas discharges (Contents of IEE Conference Publication 165) 1074
General theory of induction machines with unlaminated secondary and constant-current excitation. B.J.Chalmers and M.M.K.El Attar P 666
Generalised computational method for reliability analysis of electric power installations. D.P.Papadopoulos and B.C.Papadias E 766
Generate prescribed waveforms, class of precise oscillators, that. B.Z.Kaplan P 195
Generators, self-excited induction, static power conversion from. J.Arrillaga and D.B.Watson P 743
Grouping table for the minimisation of n-variable Boolean functions. A.K.Halder P 474
Gust-alleviation control systems for aircraft. D.McLean P 675

H

H.F. skywaves, multicomponent, measurement of the elevation angles of arrival of. R.H.Clarke and D.V.Tibble P 17
Harmonics, line, convertor control with selective reduction of. K.A.Krishnamurthy, G.K.Dubey and G.N.Revankar P 141
Harmonics produced by direct current in convertor transformers. R.Yacamini and J.C.de Oliveira P 873
Heating, electric train, with diesel locomotives. D.F.Andrew D 47
Heating in transformer cores due to radial leakage flux: Pt. 1: Experimental models and test results. R.F.Hemmings and G.D.Wale D 1265
Heating in transformer cores due to radial leakage flux. Pt. 2: Computed results. C.J.Carpenter, K.O.Sharples and M.Djurovic D 1265
Hierarchical computer control systems, design of, for industrial plant. Pt. 1 - Modelling of the output dynamics of a multiple-effect evaporator. D.J.Sandoz and O.Wong P 1290
Hierarchical computer control systems, design of, for industrial plant. Pt. 2 - Development of hierarchical controls for a multiple-effect evaporator. D.J.Sandoz and O.Wong P 1299
High-field domain, transverse spreading of a, in a bulk negative-conductance semiconductor: two-dimensional computer simulation and equivalent-circuit model. M.Kawashima P 826
High-frequency instabilities in variable-reluctance stepping motors. A.P.Russell and I.E.D.Pickup P 841
Home video recording: a review. C.E.Urban and D.M.Bowd P 619
Hybrid linear motor. M.J.Hajek and O Roubicek P 1357
Hybrid permanent-magnet synchronous motors. K.J.Binns, W.R.Barnard and M.A.Jabbar P 203
Hydrogenerator, governed, step response of (Summary). T.R.Foord P 1247
Hysteresis, analytic application of Tsypkin's method relay with, and dead zone. S.R.Atre and V.P.Lele D 700
Hysteresis, including, representation of magnetic characteristic, using Preisach's theory. M.A.Coulson, R.D.Slater and R.R.S.Simpson D 564
Hysteresis motor with overexcitation and solid-state control. D.O'Kelly P 288

I

Identification, nonlinear-system, random versus pseudorandom test signals in. V.Z.Marmarelis P 425
Identification of a class of nonlinear systems using correlation analysis. S.A.Billings and S.Y.Fakhouri P 691
Image registration using the likelihood ratio. R.Voles P 686
Imaning, radar target, by rotation about two axes. R.Voles P 919
Immittance, r.f.-, standadisation and measurements, application of 4-port coaxial junction to. D.Woods P 715
Impedance characteristics of transverse slots in the ground plane of a stripline. J.S.Rao and B.N.Das P 28
Impedance formulation of l.p.c. using a lossy vocal tract and lip termination. E.V.Stansfield P 483
Impedance, leakage, current distribution and, of various types of foil-wound transformers. M.M.El-Missiry P 987
Implementation of nonhomogeneous theory in the transient analysis of crossbonded cable systems. D.J.Wilcox and K.J.Lawler P 993
Improved analysis of jump resonance in single-phase circuits. D.E.Hirst and E.E.Barakat P 1380
Improvement on Varshamov-Gilbert lower bound on minimum Hamming distance of linear codes. A.Hashim P 104
Improvements in high-performance lowpass filters using coupled windings. N.V.Hurley P 865
Inductances, iron cored, new approach to design of, carrying direct current. A.Yair and M.Steinkaller P 1006
Induction machines, linear, travelling waves in (Summary). M.E.Isma'eel P 527
Induction motor, multispeed, fed from a switch single-phase supply. A.R.W.Broadway, Y.W.Lee and H.Y.F.Chan P 400
Induction-motor supplies, sensed reconnection of. B.Thomason, P.J.Gallagher and W.Shepherd D 890
Induction motors, linear, a new view of end effects in,. Spatial Fourier transforms. E.M.Freeman and C.Papageorgiou P 747
Induction motors, linear, theories of, with completely filled and half filled endslots. M.E.Isma'eel P 657
Induction motors, new 2-speed (Summary). K.C.Rajaraman P 957
Induction motors, radial tooth-ripple forces in, due to the main flux. K.J.Binns and E.Rowlands-Rees P 1227
Induction motors, single-phase, winding grading of. N.N.Fulton, R.D.Slater and W.S.Wood D 335
Induction motors, single-sided linear, multilayer approach to the analysis of. I.Boldea and M.Babescu P 283
Induction motors, stability study of, under variable-frequency in the presence of external inductors. J.Nanda and M.A.Mathew P 836
Induction motors, tubular-axle, for railway traction. R.W.Stokes, M.J.Lilley, M.Lockwood, N.M.Rash and E.Spooner P 959
Inductive detection of buried services. E.B.Glennie P 14
Inductors, air-cored foil-wound. R.Reeves P 460
Induction motors, 1-phase, design optimisation of starting windings for. N.N.Fulton, R.D.Slater and W.S.Wood P 1219
Influence of stress on rotational loss in silicon iron. A.Basak and A.J.Moses P 165

Influence of superimposed direct voltage on the a.c. dielectric properties of some dielectrics. M.Rapos and J.H.Calderwood P 162
Influence of winding design on the axial flux in laminated-stator cores. P.J.Tavner, J.Penman, R.L.Stoll and H.O.Lorch P 948
Initiation of arc cathode emission in Cu_2O films. M.S.I.Rageh, A.E.Guile, D.V.Morgan and A.H.Hitchcock P 81
Instabilities, high-frequency, in variable-reluctance stepping motors. A.P.Russell and I.E.D.Pickup P 841
Instability, slew-region, of permanent-magnet stepmotors. A.J.C.Bakhuizen and J.H.Wouterse P 121
Insulation, power-transformer, diffusion of moisture through. A.F.Howe P 978
Insulator washing system, automatic, to prevent flashover due to pollution. R.J.Cakebread, H.J.Brown and R.B.Dawkins P 1363
Interference reduction, for, optimisation of circular-aperture distributions. M.Safak and P.P.Delogne P 717
Interference suppression, multipath, conducting surface corrugations for. E.V.Jull and J.W.Heath P 1321
Interlamination voltages in large turbogenerators. R.J.Jackson P 1232
Interpolation of sampled-data filter output. A.R.Owens and P.R.Thomas P 489
Inverter-fed synchronous motor, variable-speed, employed natural commutation. A.C.Williamson, N.A.H.Issa and A.R.A.M.Makky P 114
Inverter schemes, p.w.m., evaluation of. S.C.Bansal and U.M.Rao P 328
Investigation of attenuation by rainfall at 60 GHz. R.J.Humpleman and P.A.Watson P 85
Investigations on operation of fully-controlled thyristor convertors. V.Subbiah and S.Palanichamy P 58
Ions, discharge, of electrons and, in a corona discharge. E.U.Landers P 1069
Iron, silicon, influence of stress on rotational loss in. A.Basak and A.J.Moses P 165
Is saturation a blessing in disguise?. A.J.C.Bakhuizen, J.G.Niesten and M.L.G.Thoone P 407

L

L.P.C., impedance formulation of, using a lossy vocal tract and lip termination. E.V.Stansfield P 483
Laminated iron, and associated losses, theory of penetration into. C.J.Carpenter D 1265
Laminated-stator cores, influence of winding design on the axial flux in. P.J.Tavner, J.Penman, R.L.Stoll and H.O.Lorch P 948
Large signal waveforms in a microwave balanced mixer with capacitance. R.Armstrong, E.Korolkiewicz and B.L.J.Kulesza P 728
Lattice relisation, asymmetrical, of RC transfer immittances. T.S.Rathore, B.M.Singhi and N.D.Somani P 501
Leakage fields, contribution to the study of, at the ends of rotating electrical machines. P.J.Tavner, P.Hammond and J.Penman P 1339
Leakage flux, radial, heating in transformer cores due to. Pt. 1: Experimental models and test results. R.F.Hemmings and G.D.Wale D 1265
Leakage flux, radial, heating in transformer cores due to. Pt. 2: Computed results. C.J.Carpenter, K.O.Sharples and M.Djurovic D 1265
Light emission and deterioration in epoxy resin subjected to power frequency electric fields. Y.Shibuya, S.Zoledziowski and J.H.Calderwood P 352
Lightning and tall structures. R.H.Golde P 347
Lightning ground-flash multiple-stroke discrimination. A.J.Eriksson, H.R.van Niekerk, G.W.Bourn and B.B.van Zyl P 555
Linear induction motors, a new view of end effects in,. Spatial Fourier transforms:. E.M.Freeman and C.Papageorgiou P 747
Linear induction motors, scale-model, with solid iron secondaries. T.G.Bland and E.M.Freeman P 1223
Linear induction motors, single-sided, multilayer approach to the analysis of. I.Boldea and M.Babescu P 283
Linear-interconnected dynamical systems, robust decentralised controller for. M.F.Hassan and M.G.Singh P 429
Linear motor, hybrid. M.J.Hajek and O Roubicek P 1357
Linear programming, power-system state estimation using. M.R.Irving, R.C.Owen and M.J.H.Sterling P 879
Linear reluctance motors, segmental-rotor, with large airgaps. J.D.Edwards and A.M.El-Antably P 209
Linear scalar-potential models for permanent-magnet circuits. R.A.Ashen P 1403
Linear scalar systems, canonical form for the reduction of. A.D.Field and D.H.Owens P 337
Linear time-varying systems, exact model matching of. P.N.Paraskevopoulos P 66
Lines, infinitely-long single-conductor, propagation characteristics of, by the complete field solution method. A.E.Efthymiadis and L.M.Wedepohl P 511
Load-dispatch solution, economic, using fast-decoupled load flow. J.N.Malik and G.K.Rao P 334
Load flow, fast-decoupled three-phase. J.Arrillaga and B.J.Harker P 734
Load flows, a.c.-d.c., with realistic representation of the convertor plant. J.Arrillaga and P.Bodger P 41
Locomotives, diesel, electric train heating with. D.F.Andrew D 47
Low-frequency correlator using a bucket-brigade analogue delay line. P.C.Fannin E 108
Lowpass filters, improvements in high-performance, using coupled windings. N.V.Hurley P 865

M

M.I.M.D. computer organisation, performance results for an, using pipelined binary switches and cache memories. R.C.Pearce and J.C.Majithia P 1203
Machine that applies it, advanced theory of the delay of the commutating pole flux of a d.c. machine, and the improved. S.Sakabe, M.Iwamoto, Y.Nakanishi and T.Kawamura P 857
Machines, electronic-firing system for, with thyristor-assisted commutation. A.W.Bingham and R.E.Colver P 673
Machines, induction, general theory of, with unlaminated secondary and constant-current excitation. B.J.Chalmers and M.M.K.El Attar P 666
Machines, synchronous, dynamoc-stability analysis of, including damper circuits, automatic voltage regulator and governor. J.M.Stephenson and A.H.M.S.Ula D 886
Magnetic characteristic, representation of, including hysteresis, using Preisach's theory. M.A.Coulson, R.D.Slater and R.R.S.Simpson D 564
Magnetic suspension device, performance and stbl[[stability of a, using a tuned LCT circuit. S.Hagihara P 153
Management, computer-aided design and, of electrical contracts. K.T.Oakley, P.R.Ward, P.N.Care and D.H.Rumley P 915
Matrix, modal, relationship between, and state transformation matrices for 2-element-kind networks. K.V.V.Murthy and R.E.Bedford E 730
Matrix renormalisation:, multiport analysis by, extension to four ports. D.Woods E 376
Matrix renormalisation:, multiport network analysis, extension to 5- and 6-ports (Summary). D.Woods P 1217
Measurement of permittivity through pondermotive force determination. A.Savini, G.B.Parravicini and E.R.Mognaschi P 905
Measurement of rotor temperatures of a 500 MW turnine generator with unbalanced loading. A.C.Williamsen D 1259
Measurement of the elevation angles of arrival of multicomponent h.f. skywaves. R.H.Clarke and D.V.Tibble P 17
Measurement systems, optical, noise reduction in. A.M.Smith P 935
Measurements, r.f.-immattance standardisation and, application of 4-port coaxial junction to. D.Woods P 715
Measuring active power in short time variations, simple method of. I.Peled and R.Hida D 152
Mechanical behaviour, study of, of cables in integral-pipe water cooled systems. G.Luoni, G.Meschio and W.G.Lawson D 1015
Medium-wave propagation in built-up areas. J.H.Causebrook P 804
Microelectronics and the power engineer. E.Paddison P 648
Microprocessor, dedicated, digital excitation control of a.c. turbogenerators using a. P.J.Burrows and A.R.Daniels P 237
Microprocessor, the and its application. D.Aspinall A 16
Microstrip, ferrite, circulators, design and performance of J-band (12.4-18 GHz). C.H.Oxley, T.J.Brazil, J.J.Purcell and R.Genner P 724
Microstrip, spurious radiation from. L.Lewin P 633
Microwave balanced mixer with capacitance, large signal waveforms in a. R.Armstrong, E.Korolkiewicz and B.L.J.Kulesza P 728
Microwave modelling of h.f. Yagi antennas over imperfectly-conducting grou.id. P.S.Hall, B.Chambers and P.A.McInnes P 261
Minicomputer online control of d.c. link convertors. N.L.Shore and L.L.Freris P 215
Minimum variance control, estimation and simulation of nonlinear models of waste-water-treatment systems. C.J.Harris P 441
Mixer, microwave balanced, with capacitance large signal waveforms in a. R.Armstrong, E.Korolkiewicz and B.L.J.Kulesza P 728
Model matching, exact, of linear time-varying systems. P.N.Paraskevopoulos P 66
model-matching techniques, decoupling controller design via exact. P.N.Paraskevopoulos P 1285
Model, state-space computer triac. B.W.Williams P 413
Modes of propagation in cylindrical waveguides with anisotropic walls. B.MacA.Thomas and H.C.Minnett P 929
Modulation processes, analysis of, in power convertors (Summary). A.Balestrino, G.De Maria and L.Schiavicco P 411
Modulators, shorting-coil. P.Mehta, T.Thomson and W.Un P 60
Monte-Carlo method for discrete inhomogeneous problems. F.Sanchez-Quesada, M.Sancho-Ruiz and Vidal Rodriguez,M. P 1400
Motor controllers, thyristor, digital firing-angle circuit for. A.R.Daniels and R.T.Lipczynski P 245
Motors, capacitor, plugging of. K.Manickam and R.Srinivasan P 848
Motors, shaded-pole, evaluation of the reluctance-augmentation principle in. S.Williamson and P.Breese P 831
Motors, single-phase induction, winding grading of. N.N.Fulton, R.D.Slater and W.S.Wood D 335
Multi-aperture directional coupler using dissimilar transmission lines. Mahesh Kumar. and B.N.Das E 376
Multilayer approach to the analysis of single-sided linear induction motors. I.Boldea and M.Babescu P 283
Multilevel load-frequency control of interconnected power systems. N.N.Bengiamin and W.C.Chan P 521
Multimachine and multicell systems, Pt. 1: Wider application of multipass systems theory. J.B.Edwards P 447
Multiplex systems, crosstalk in, using Walsh functions. M.J.Carey and A.G.Constantinides P 1329
Multiplexed controls on underground trains. M.A.Harding P 49
Multiport network analysis by matrix renormalisation: extension to 5- and 6-ports (Summary). D.Woods P 1217
Multiport network analysis by matrix renormalisation: extension to four ports. D.Woods E 376
Multiport network analysis by matrix renormalisation: extension to four ports. D.Woods E 376
Multispeed induction motor fed from a switched single-phase supply. A.R.W.Broadway, Y.W.Lee and H.Y.F.Chan P 400
Multistage pulse-width-modulated inverter systems for generating stepped-voltage waveforms. S.M.Sriraghavan, B.D.Pradhan and G.N.Revankar P 529

N

N.I.C. for error compensation of a current transformer. P.Sankaran and P.Kanagasabapathy P 887
Nature of space diversity in microwave communications via geostationary satellites: a review. J.E.Allnutt P 369
Near-field/far-field transformation, antenna, using a plane-wave-synthesis technique. J.C.Bennett and E.P.Schoessow P 179
Negative resistance cirxuits, frequency-dependent, realisation of, using two capacitors and a single current conveyor. A.M.Soliman P 1336
Network analyser, the modern transient, and its role in analysis and design of electrical systems. W.M.Ritchie and J.T.Pender P 129
Network analysis, multiport, by matrix renormalisation: extension to 5- and 6-ports (Summary). D.Woods P 1217
Network, multiport, analysis by matrix renormalisation: extension to four ports. D.Woods E 376
Networks, 2-element-kind, relationship betweem modal matrix and state transformation matrices for. K.V.V.Murthy and R.E.Bedford E 730
New 2-speed induction motors (Summary). K.C.Rajaraman P 957
New approach to analysis of polarised mho relays under close-up-fault conditions. M.S.Kandil P 56
New approach to design of ironcored inductances carrying direct current. A.Yair and M.Steinkaller P 1006
New expressions and some more precise values for Student's t-factor. I.A.Harris and F.L.Warner P 902
New method of deriving equivalence conditions in linear diffusion equations. G.B.Mahapatra P 345
New power convertor technique employing power transistors. A.R.Daniels and D.T.Slattery P 146
Nitrogen, electrical breakdown of, at high electric fields. R.Coates, J.Dutton and F.M.Harris P 558

Noise reduction in optical measurement systems. A.M.Smith P 935
Nonlinear models, minimum variance control, estimation and simulation of, of wastewater-treatment systems. C.J.Harris P 441
Nonlinear-system indentification, random versus pseudorandom test signals in. V.Z.Marmarelis P 425
Nonlinear systems, identification of a class of, using correlation analysis. S.A.Billings and S.Y.Fakhouri P 691
Nonlinearities, single-and double-valued, determination of the sinusoidal and dual-input describing functions for a class of (Summary). C.P.Lewis P 73
Novel disc-motor designs. J.Eastham and P.D.Evans P 416
Novel electro-optical alignment technique (Summary). A.H.Falkner P 71
Novel electro-optical instrument for profile measurement. A.H.Falkner P 1396
Numerical determination of a performance index for improved system response. J.R.Smith and D.C.Stringfellow P 698

O

Oil-cooled cables, 400 kVA internally, field trials of. W.Brotherton, H.N.Cox, R.F.Frost and J.Selves D 1021
Operation of a 3-phase a.c. thyristor-regulator feeding an R or RL or RC load (Summary). C.Rombaut, H.Schoorens and G.Seguier P 741
Optical measurement systems, noise reduction in. A.M.Smith P 935
Optimal aiming strategies, transient stability augmentation with a bracking resistor using. A.Sen and J.Meisel P 1249
Optimal control, low-sensitivity, synthesis of, in distributed parameter systems. M.C.Y.Kuo and M.N.B.Ayiku P 550
Optimal feedback control systems, stochastic, design of. M.J.Grimble P 1275
Optimal feedback control systems, stochastic, design of. M.J.Grimble P 1275
Optimisation, design of starting windings for 1-phase induction motors. N.N.Fulton, R.D.Slater and W.S.Wood P 1219
Optimisation of circular-aperture distributions for interference reduction. M.Safak and P.P.Delogne P 717
Optimised control of water distribution systems. B.Coulbeck and M.J.H.Sterling P 1039
Optimum regulators, single-input, simple method for the design of, and servomechanisms. M.J.Grimble P 537
Oscillators, precise, class of, that generate prescribed waveforms. B.Z.Kaplan P 195
Oscillatory motion, parametric, in electromehcanical devices. A.P.Russell and I.E.D.Pickup P 269
Output-feedback compensator, design of a dynamic. G.S.Mueller and L.X.Nghiem P 343

P

P.W.M. inverter schemes, evaluation of. S.C.Bansal and U.M.Rao P 328
Pal System 1 phosphor primaries: the present position. W.H.Sproson P 603
Paramaters and losses of hydrogenerator damping systems. E.Chiricozzi, R.Magopian and A.Nazarian P 853
Parametric oscillatory motion in electromechanical devices. A.P.Russell and I.E.D.Pickup P 269
Performance and stability of a magnetic suspension device using a tuned LCR circuit. S.Hagihara P 153
Performance and testing of multi-unit circuit breakers switching low inductive currents. G.E.Gardner and R.J.Urwin P 230
Performance index, numerical determination of a, for improved system response. J.R.Smith and D.C.Stringfellow P 698
Performance of high-speed distance relays with particular reference to travelling-wave effects. A.T.Johns and R.K.Aggarwal D 761
Performance prediction of a wide-angle limited-motion rotary actuator. C.Dawson and H.R.Bolton P 895
Performance requirements for the transmission of the Pal coded signal. I.F.Macdiarmid and J.W.Allnatt P 571
Performance results for an m.i.m.d. computer organisation using pipelined binary switches and cache memories. R.C.Pearce and J.C.Majithia P 1203
Permanent-magnet behaviour under 'open-circuit' conditions. R.A.Ashen P 1410
Permanent-magnet circuits, linear scalar-potential models for. R.A.Ashen P 1403
Permanent-magnet, hybrid, synchronous motors. K.J.Binns, W.R.Barnard and M.A.Jabbar P 203
Permittivity, measurement of, through ponderomotive force determination. A.Savini, G.B.Parravicini and E.R.Mognaschi P 905
Phosphor mrimaries:, Pal System 1, the present position. W.H.Sproson P 603
Pipelined binary switches and cache memories, performance results for an m.i.m.d. computer organisation using. R.C.Pearce and J.C.Majithia P 1203
Plugging of capacitor motors. K.Manickam and R.Srinivasan P 848
POLFAC - a routine to find the factors of a polynomial with real coefficients. A.Asbury P 899
Pollution, automatic insulator washing system to prevent flashover due to. R.J.Cakebread, H.J.Brown and R.B.Dawkins P 1363
Pollution, effect of, on the breakdown voltage of air. M.L.El-Sayed, E.M.El-Refaie and M.M.Awad P 714
Polyethylene, electrically stressed, absorption of water by. D.W.Auckland, R.Cooper and C.Walker P 776
Polynomial, POLFAC - a routine to find the factors of a, with real coefficients. A.Asbury P 899
Possibility of automatically acquiring the optimal adjusting step in adaptive equalisers. E.Cecchi, G.Martinelli, G.Orlandi and M.Salerno P 626
Power conversion, static from self-excited induction generators. J.Arrillaga and D.B.Watson P 743
Power convertor technique, new, employing power transistors. A.R.Daniels and D.T.Slattery P 146
Power convertors, analysis of modulation processes in (Summary). A.Balestrino and G.De Maria P 411
Power convertors, polyphase regenerative, application of power transistors to. A.R.Daniels and D.T.Slattery P 643
Power Electronics-Power Semiconductors and their applications (Contents of IEE Conference Publication 154) P 8
Power generation in the future. R.Hawley P 967
Power industry, communications for the. H.C.A.Hankins A 54
Power-loss measurements, effects of stacking methods on Epstein-square. A.J.Moses and P.S.Phillips D 260
Power-station construction in the UK: which way for the future?. D.J.Miller A 33
Power system, interconnected, automatic generation control of an. J.Nanda and B.L.Kaul P 385
Power system, some new solutions to ferroresonance problem in. S.Prusty and S.K.Sanyal E 416
Power-system state estimation using linear programming. M.R.Irving, R.C.Owen and M.J.H.Sterling P 879
Power systems, interconnected, multilevel load-frequency control. N.N.Bengiamin and W.C.Chan P 521
Power transistors, application of, to polyphase regenerative power convertors. A.R.Daniels and D.T.Slattery P 643
Power transistors, new power convertor technique employing. A.R.Daniels and D.T.Slattery P 146
Practical implementation on a 5kVA synchronous generator of an adaptive excitation controller strategy for a wide range of operating conditions. V.A.Phung and M.J.Gibbard P 1009
Prediction of load characteristics of turbogenerators. K.J.Binns and J.R.Smith P 197
Professional recording of the standard Pal signal. P.J.Darby P 611
Propagation characteristics of infinitely-long single-conductor lines by the complete field solution method. A.E.Efthymiadis and L.M.Wedepohl P 511
Propagation, medium-wave, in built-up areas. J.H.Causebrook P 804
Propagation research, utilisation of radiosonde data in. S.R.Bowen and B.Chambers P 809
Protection performance, distance, during simultaneous faults. V.Cook D 761
Public-supply-system distortion and unbalance from single-phase a.c. traction. D.C.Howroyd P 517
Pulse-code modulation of video signals: codes specifically designed for Pal. V.G.Devereux and A.H.Jones P 591
Pulse-width-modulated inverter systems, multistage, for generating stepped-voltage waveforms. S.M.Sriraghaven, B.D.Pradham and G.N.Revankar P 529

Q

Quality and reliability in a telecommunications system. C.A.May A 9

R

Radar-77 (Contents of IEE Conference Publication 155) P 824
Radar target imaging by rotation about two axes. R.Voles P 719
Radars, frequency-agile, simple null-steering antenna for R.Voles P 623
Radial tooth-ripple forces in induction motors due to the main flux. K.J.Binns and E.Rowlands-Rees P 1227
Radiation pressure. P.Vigoureux P 709
Radiation properties of microwave reflector antennas covered with a water film. (Summary) A.S.Marinčić and B.D.Popovic P 933
Railway traction, tubular-axle induction motors for. R.W.Stokes, M.J.Lilley, M.Lockwood, N.M.Rash and E.Spooner P 959
Rainfall, investigation of attenuation by, at 60 GHz. R.J.Humpleman and P.A.Watson P 85
Random versus pseudorandom test signals in nonlinear-system identification. V.Z.Marmarelis P 425
Rapid estimation of spectra from irregularly sampled records. J.B.Roberts and M.Gaster P 92
Rapid-transit railways, simulator for operational and power supply conditions in. B.Mellit, C.J.Goodman and R.I.M.Arthurton P 298
Reactive energy in a nonlinear network element. Kozelji,M. P 1309
Realisation of frequency-dependent negative resistance circuits using two capacitors and a single current conveyor. A.M.Soliman P 1336
Realisation of the operator Z_x/Z_y. T.S.Rathore and B.M.Singhi P 727
Receiver:, the Pal, developments and progress. G.H.Sturge and P.A.Tingey P 599
Recording Pal signals in digital form. J.L.E.Baldwin P 606
Recording, professional, of the standard Pal signal. P.J.Darby P 611
Refuse as fuel, experience at Edmonton (GLC) of generating electricity using (Summary). F.T.F.Wiggin P 169
Regulator, thyristor-, operation of a 3-phase a.c., feeding an R or RL ro RC balanced load (Summary). C.Rombaut, H.Schoorens and G.Seguier P 741
Relationship between modal matrix and state transformation matrices for 2-element-kind networks. K.V.V.Murthy and R.E.Bedford E 730
Relay, directional, offering a continuously adjustable operating zone. Z.Pasic and J.Brasnic P 889
Relay, Tsypkin's method, analytic application of, with hysteresis and dean zone. S.R.Atre and V.P.Lele D 700
Relays, performance of high-speed distance, with particular reference to travelling-wave effects. A.T.Johns and R.K.Aggarwal D 761
Relays, polarised mho, new approach to analysis of, under close-up-fault conditions. M.S.Kandil P 56
Reliability analysis, generalised computational method for, of electric power installations. D.P.Papadopoulos and B.C.Papadias P 37
Reliability, quality and, in a telecommunications system. C.A.May A 9
Reluctance motors, segmental-rotor linear, with large airgaps. J.D.Edwards and A.M.El-Antably P 209
Reluctance motors, single-phase, synchronous performance of. J.W.Finch and P.J.Lawrenson P 1350
Representation of magnetic characteristic, including hysteresis, using Preisach's theory. M.A.Coulson, R.D.Slater and R.R.S.Simpson D 564
Residue-calculus solution of the TM_{10}-mode problem in -icular corrugated waveguides. M.J.Al;Hakkak P 787
Response of an a.m. receiver to a quasisynchronous multi-a.m.-transmitter field. M.O.Al-Nuaimi E 730
Review, a, home video recording:,. C.E.Urban and D.M.Bowd P 619
Robust decentralised controller for linear-interconnected dynamical systems. M.F.Hassan and M.G.Singh P 429
Routh-approximant time-domain reduced-order models for single-input/single-output systems. A.S.Rao, S.S.Lamba and S.-.Rao P 1059

S

Sampled-data filter output, interpolation of. A.R.Owens and P.R.Thomas P 489
Sampled records, irregularly, rapid estimation of spectra from. J.B.Roberts and M.Gaster P 92
Satellites:, geostationary, nature of space diversity in microwave communications via, a review. J.E.Allnutt P 369
Scale-model linear induction motors with solid iron secondaries. T.G.Bland and E.M.Freeman P 1223
Scanning antenna, electronic, using a nonuniformly-spaced planar array. F.Hodjat P 185
Schlieren studies of impulse breakdown in air gaps. A.Kurimoto, O.Farish and D.J.Tedford P 767
Segmental-rotor linear reluctance motors with large airgaps. J.D.Edwards and A.M.El-Antably P 209

Semiconductor:, transverse spreading of a high-field domain in a bulk negative-conductance, two-dimensional computer simulation and equivalent-circuit model. M.Kawashima, S.Kataoka, and M.Morisue P 826
Semiconductors, Power Electronics-Power, and their applications (Contents of IEE Conference Publication 154) P 8
Sensed reconnection of induction-motor supplies. B.Thomason, P.J.Gallagher and W.Shepherd D 890
Sensitivity optimal control, low-, syhtnesis of, in distributed parameter systems. M.C.Y.Kuo and M.N.B.Ayiku P 550
Sensor, fail-safe electromagnetic train speed, design of. R.J.Hill P 1239
Servomechanisms, simple method for the design of single-input optimum regulators and. M.J.Grimble P 537
Shorting-coil modulators. P.Mehta, T.Thomson and W.Un P 60
Signal, Pal coded, performance requirements for the transmission of the. I.F.Macdiarmid and J.W.Allnatt P 571
Signals, combined pseudorandom-noise, decomposition technique for acquiring. Wai-Hung.Ng P 811
Signals, encryption of, using data transpositions (Summary). S.C.Kak P 1327
Signals, interfering, characteristics of, in aeronautical h.f. voice channels. G.F.Gott and M.J.D.Staniforth P 1208
Simple convection-loss dominated model for optically thick SF_6 arcs. D.R.Airey P 770
Simple method for the design of single-input optimum regulators and servomechanisms. M.J.Grimble P 537
Simple method of measuring active power in short time variations. I.Peled and R.Hida D 152
Simple-null-steering antenna for frequency-agile radars. R.Voles P 623
Simple proof of the continued fraction algorithm for decoding Reed-Solomon codes. I.S.Reed and T.K.Truong P 1318
Simplified decoders for projective-geometry codes. L.E.Wright and L.F.Turner P 365
Simulating faults, developments in techniques for, e.h.v. transmission systems. A.T.Johns and M.M.T.El-Kateb P 221
Simulation studies of energy saving with chopper control on the Jubilee line. B.Mellitt, C.J.Goodman and R.I.M.Arthurton P 304
Simulation techniques, distribution system voltage studies using (Summary). E.Economakos P 151
Simulation, two-dimensional computer, and equivalent-circuit model, transverse spreading of a high-field domain in a bulk negative-conductance semiconductor. M.Kawashima P 826
Simulator for studying operational and power-supply conditions in rapid-transit railways. B.Mellit, C.J.Goodman and R.I.M.Arthurton P 298
Single-phase ferroresonance on a $150/\sqrt{3}$ kV voltage transformer: comparison of measured and computed results. N.Germay, S.Mastero and J.Vroman P 533
Sinusoidal and transient response of coaxial current shunts. E.M.Freeman and K.Y.K.Wu P 465
Slew-region instability of permanent-magnet stepmotors. A.J.C.Bakhuizen and J.H.Wouterse P 121
Solid-state control, hysteresis motor with overexcitation and. D.O'Kelly P 288
Solution of electrostatic field problems using Sander's function. R.Wilkins and J.J.Liftle P 909
Solution of the linear-estimation problem in the s-domain. M.J.Grimble P 541
Some characteristics of negative point-plane corona. P.S.Gardiner P 467
Some new solutions to ferroresonance problem in power system. S.Prusty and S.K.Sanyal E 416
Spatial Fourier transforms: a new view of end effects in linear induction motors. E.M.Freeman and C.Papageorgiou P 747
Spectra, rapid estimation of, from irregularly sampled records. J.B.Roberts and M.Gaster P 92
Speech output from a computercontrolled water-supply network. F.Fallside and S.J.Young P 157
Spurious radiation from microstrip. L.Lewin P 633
Stability analysis via the extended matrix sign function. R.L.Mattheys P 241
Stability augmentation, transient, with a bracking resistor using optimal aiming strategies. A.Sen and J.Meisel P 1249
Stability, -dynamic, analysis of synchronous machine including damper circuits, automatic voltage regulator and governor. J.M.Stephenson and A.H.M.S.Ula D 886
Stability, performance and, of a magnetic suspension device using a tuned LCT circuit. S.Hagihara P 153
Stability region, transient, of synchronous generator with saturable excited. H.Yee and M.J.Muir P 943
Stability studies, decoupled. R.Kasturi P 293
Stability study of induction motors under variable-frequency modes in the presence of external inductors. J.Nanda and M.A.Mathew P836
Stacking methods, effects of, on Epstein-square power-loss measurements. A.J.Moses and P.S.Phillips D 260
Standardisation and measurements, r.f. immittance, application of 4-port coaxial. D.Woods P 715
State estimation power-system, using linear programming. M.R.Irving, R.C.Owen and M.J.H.Sterling P 879
State-space computer triac model. B.W.Williams P 413
Static power conversion from self-excited induction generators. J.Arrillaga and D.B.Watson P 743
Step response of governed hydrogenerator (Summary). T.R.Foord P 1247
Stepmotors, permanent-magnet, slew-region instability of. A.J.C.Bakhuizen and J.H.Wouterse P 121
Stepped-sideways Townsend discharge movement in a crossed magnetic field. M.P.Watts and A.E.D.Heylen P 563
Stochastic optimal feedback control systems, design of. M.J.Grimble P 1275
Stress, influence of, on rotational loss in silicon iron. A.Basak and A.J.Moses P 165
Stripline, impedance characteristics of transverse slots in the ground plane of a. J.S.Rao and B.N.Das P 28
Student's t-factor, new expressions and some more precise values for. I.A.Harris and F.L.Warner P 902
Study of mechanical behaviour of cables in integral-pipe water-cooled systems. G.Luoni, G.Meschio and W.G.Lawson D 1015
Surface-discharge-initiated breakdown in solid dielectrics immersed in high-pressure gaseous mixtures. P.Paul and C.N.Reddy P 361
Switched single-phase supply, multispeed induction motor fed from a. A.R.W.Broadway, Y.W.Lee and H.Y.F.Chan P 400
Synchronous generator, 5kVA, practical implementation on a, , of an adaptive excitation controller strategy for a wide range of operating conditions. V.A.Phung and M.J.Gibbard P 1009
Synchronous generator, transient stability region of, with saturable exciter. H.Yee and M.J.Muir P 943
Synchronous machines, dynamic-stability analysis of, including damper circuits, automatic voltage regulator and governor. J.M.Stephenson and A.H.M.S.Ula D 886
Synchronous motor, variable-speed inverter-fed, employing natural commutation. A.C.Williamson, N.A.H.Issa and A.R.A.M.Makky P 114
Synchronous motors, variable-speed, bruchless excitation system for a class of. B.J.Chalmers, J.M.Mwenechanya and K.Pacey P 754
Synchronous performance of single-phase reluctance motors. J.W.Finch and P.J.Lawrenson P 1350
Synthesis of inductive displacement-measuring system using computer-aided design. A.L.Hugill P 417
Synthesis of low-sensitivity optimal control in distributed parameter systems. M.C.Y.Kuo and M.N.B.Ayiku P 550
Synthetic testing: the present state. E.Slamencka, W.Rieder and W.T.Lugton P 1376
System distortion, public-supply-, and unbalance from single-phase a.c. traction. D.C.Howroyd P 517
System faults - cure or prevention. G.Haughan P55
Systems, dynamic, analysis and synthesis of, containing time delays via block-pulse functions. G.P.Rao and T.Srinivasan P 1064
Systems, linear-interconnected dynamical, robust decentralised controller for. M.F.Hassan and M.G.Singh P 429
Systems theory, multipass, wider application of,. Pt. 2: Controlled distributed processes. J.B.Edwards P 453

T

Technical performance of long chains of u.h.f. television broadcast transmitters. R.C.Hills and M.H.Edwards P 566
Technique for assessing the bearing accuracy of distant h.f. transmitters. T.B.Jones and C.T.Spracklen P 469
Telecommunications system, quality and reliability in a. C.A.May A 9
Telecontrol systems for electricity transmission and distribution networks. J.P.Wimbush A 55
Television broadcast transmitters, u.h.f., technical performance of long chains of. R.C.Hills and M.H.Edwards P 566
Testing, performance and, of multi-unit circuit breakers switching low inductive currents. G.E.Gardner and R.J.Urwin P230
The design and application of e.h.v. substations (Contents of IEE Conference Publication 15') 1031
The growth of electronics and its implications for education. F.A.Benson A 75
The microprocessor and its application. D.Aspinall A 16
The modern transient network analyser and its role in analysis and design of electrical systems. W.M.Ritchie and J.T.Pender P 129
The Pal receiver: developments and progress. G.H.Sturge and P.A.Tingey P 599
The twin pillars of engineering. J.M.Ferguson P 1
Theories of linear induction motors with completely filled and half filled endslots. M.E.Isma'eel P 657
Theory of flux penetration into laminated iron and associated losses. C.J.Carpenter D 1265
Theory of separable processes with applications to the identification of nonlinear systems. S.A.Billings and S.Y.Fakhouri P 1051
Theory of the circular-disc printed-circuit antenna. S.A.Long, L.C.Shen and P.B.Morel P 925
Thermal gradients, earth-surface, evaluation of, due to buried cables. P.Y..Foo P 531
Thyristor-assisted commutation, electronic-firing system for machines with. A.W.Bingham and R.E.Colver P 673
Thyristor convertors, fully-controlled, investigations on operation of. V.Subbiah and S.Palanichamy P 58
Thyristor-regulator, 3-phase a.c., operation of a, feeding am R or RL or RC balanced load (Summary). C.Rombaut, H.Schoorens and G.Seguier P 741
Time-domain reduced-order models, Routh-approximant, for single-input/single-output systems. A.S.Rao, S.S.Lamba and S.-.Rao P 1059
Time-varying systems, linear, exact model matching of. P.N.Paraskevopoulos P 66
Timing errors in Pal colour-television signals. S.M.Edwardson P 586
Torque optimisation of a variable-reructance stepping motor. V.V.Athani and S.K.Khurana P 1271
Townsend discharge movement, stepped-sideways, in a crossed magnetic field. M.P.Watts and A.E.D.Heylen P 563
Traction, single-phase a.c., public-supply-system distortion and unbalance from. D.C.Howroyd P 517
Train-speed sensor, fail-safe electromagnetic, design of. R.J.Hill P 1239
Trains, underground, multiplexed controls on. M.A.Harding P 49
Transformer cores, heating in, due to radial leakage flux. Pt. 1: Experimental models and test results. R.F.Hemmings and G.D.Wale D 1265
Transformer cores, heating in, due to radial leakage flux. Pt. 2: Computed results. C.J.Carpenter, K.O.Sharples and M.Djurovic D 1265
Transformer insulation, power-, diffusion of moisture through. A.F.Howe P 978
Transformers, convertor, harmonics produced by direct current in. R.Yacamini and J.C.de Oliveira P 873
Transformers, foil-wound, current distribution and leakage impedance of various types of. M.M.El-Missiry P 987
Transforms, fast Mersenne-prime, for digital filtering. I.S.Reed and T.K.Truong P 433
Transient analysis, implementation of nonhomogeneous theory in the, of crossbonded cable systems. D.J.Wilcox and K.J.Lawler P 993
Transient network analyser, the modern, and its role in analysis and design of electrical systems. W.M.Ritchie and J.T.Pender P 129
Transient phenomena in crossbonded cable systems: analytical results. D.J.Wilcox and K.J.Lawler P 999
Transient response, sinusoidal and, of coaxial current shunts. E.M.Freeman and K.Y.K.Wu P 465
Transient security assessment methods. H.Rudnick and A.Brameller P 135
Transient stability augmentation with a bracking resistor using optimal aiming strategies. A.Sen and J.Meisel P 1249
Transient stability region of synchronous generator with saturable exciter. H.Yee and M.J.Muir P 943
Transmission, electricity, telecontrol systems for, and distribution networks A55
Transmission lines, dissimilar, multi-aperture directional coupler using. Mahesh Kumar. and B.N.Das E 376
Transmission lines, e.h.v., fundamental digital approach to the distance protection of. A.T.Johns and M.A.Martin P 377
Transmission lines, effect of multilayer earth on wave propagation in overhead and underground. D.H.Shun and S.Y.King P 731
Transmission lines, wave propagation in, over lossy ground: a new complete field solution. L.M.Wedepohl and A.E.Efthymiadis P 505

Transmission systems, e.h.v., developments in techniques for simulating faults in. A.T.Johns and M.M.T.El-Kateb P 221
Transmission, two-way, of base-band digital signals. E.V.Jones and K.W.Cattermole P 815
Transmitters, u.h.f. television broadcast, technical performance of long chains of. R.C.Hills and M.H.Edwards P 566
Transverse spreading of a high-field domain in a bulk negative conductance semiconductor: two-dimensional computer simulation and equivalent-circuit model. M.Kawashima, S.Kataoka, and M.Morisue P 826
Travelling-wave effects, performance of high-speed distance relays with particular reference to. A.T.Johns and R.K.Aggarwal D 761
Travelling waves in linear induction machines (Summary). M.E.Isma'eel P 527
Tubular-axle induction motors for railway traction. R.W.Stokes, M.J.Lilley, M.Lockwood, N.M.Rash and E.Spooner P 959
Turboalternator excitation control incorporating nonlinear state feedback (Summary). G.S.Chana and A.R.Daniels P 1245
Turbogenerator, a.c., discrete control of an, by output feedback. P.A.W.Walker and O.H.Abdalla P 1031
Turbogenerators, large, interlamination voltages in. R.J.Jackson P 1232
Turbogenerators, prediction of load characteristics of. K.J.Binns and J.R.Smith P 197
Turbulence in high-current arcs. S.Ramakrishnan, A.D.Stokes and J.J.Lowke P 359
Turnine-generator rotor caused by unbalanced loading, analysis of the losses in a. A.C.Williamson and E.B.Urquhart D 1259
Two-way transmission of baseband digital signals. E.V.Jones and K.W.Cattermole P 815

U

UK requirements and future prospects for forced-cooled cable systems. E.H.Ball, J.D.Endacott and D.J.Skipper D 1021
Unbalanced loading, analysis of the losses in a turbine-generator rotor caused by. A.C.Williamson and E.B.Urquhart D 1259
Use of a voltage follower for the error reduction of a voltage transformer. P.Sankaran and P.Kanagasabapathy P 1272
Use of case studies to support an electrical engineering laboratory course. B.Bolton and K.J.Adderley P 247
Use of London's electricity supply system for centralised control. A.J.Baggott, B.E.Eyre, G.Fielding and F.M.Gray P 311
Utilisation of radiosonde data in propagation research. S.R.Bowen and B.Chambers P 809

V

Variable-speed inverter-fed synchronous motor employing natural commutation. A.C.Williamson, N.A.H.Issa and A.R.A.M.Makky P 114
Variable-speed single-phase linear induction motor. B.Varashyndharosoth and D.B.Watson P 1274
Variance of the estimate of amplitude distributions. J.L.Douce P 422
Vdieo recording:, home, a review. C.E.Urban and D.M.Bowd P 619
Vibration, resonant, control of, in a spring-fatigue-testing instrument. H.A.Barker, A.E.Noble and V.O.Mills P 1045
Video sig nals:, pulse-code modulation of, codes specifically designed for Pal. V.G.Devereux and A.H.Jones P 591
Vocal tract, lossy, impedance formulation of l.p.c. using a, and lip termination. E.V.Stansfield P 483
Voice channels, aeronautical h.f., characteristics of interfering signals in. G.F.Gott and M.J.D.Staniforth P 1208
Voltage regulator and governor, dynamic-stability analysis of synchronous machines including damper circuits, automatic. J.M.Stephenson and A.H.M.S.Ula D 886
Voltage studies, distribution system, using simulation techniques (Summary). E.Economakos P 151
Voltage transformer:, single-phase ferroresonance on a 150/$\sqrt{3}$ kV, comparison of measured and computed results. N.Germany, S.Mastero and J.Vroman P 533

W

Walsh functions, crosstalk in multiplex systems using. M.J.Carey and A.G.Constantinides P 1329
Wastewater-treatment systems, minimum variance control, estimation and simulation of nonlinear models of. C.J.Harris P 441
Water distribution systems, optimised control of. B.Coulbeck and M.J.H.Sterling P 1039
Wattmeter for some common requirements. W.F.P.Collinson and P.L.Moreton P 355
Watts in a wire. D.K.Latham A 236
Wave propagation, effect of multilayer earth on, in overhead and underground transmission lines. D.H.Shun and S.Y.King P 731
Wave propagation in transmission lines over lossy ground: a new, complete field solution. L.M.Wedepohl and A.E.Efthymiadis P 505
Waveguides, circular corrugated, residue-calculus solution of the TM_{10}-mode problem in. M.J.Al;Hakkak P 787
waveguides, cylindrical, modes of propagation in, with anisotropic walls. B.MacA.Thomas and H.C.Minnett P 929
Wider application of multipass systems theory, Pt. 1: Multimachine and multicell systems. J.B.Edwards P 447
Wider application of multipass systems theory. Pt. 2: Controlled distributed processes. J.B.Edwards P 453
Winding design, influence of, on the axial flux in laminated-stator cores. P.J.Tayner, J.Penman, R.L.Stoll and H.O.Lorch P 948
Winding grading of single-phase induction motors. N.N.Fulton, R.D.Slater and W.S.Wood D 335
Windings, starting, design optimisation of, for 1-phase induction motors. N.N.Fulton, R.D.Slater and W.S.Wood P 1219

Index to discussion contributors

Armstrong, D.S., **517**
Arnold, J.J., **1259**
Aylett, B., **1257**

Baldwin, D.G., **517**
Banks, J., **1015**
Barnes, C.C., **1015, 1021**
Barton, A.H., **1015**
Bennett, R.B., **1259**
Bevan, R.A., **1257**
Bird, W.E., **1015**
Boone, W., **1021**
Boyle, D., **1027**
Brakelmann, H., **1201**
Brown, A., **48**

Calverley, H.B., **48**
Cherry, D.M., **1015**
Coates, R., **518**
Cure, J.R., **886**

El-Kateb, M., **763**

Gibson, J.W., **1256**
Gonek, S.M., **1027**
Gregory, B., **1015, 1021**

Hawes, A., **47**
Hindmarsh, R., **1259**
Howe, D., **1265**
Howroyd, D.C., **519**
Hunt, A., **1259**

Jack, A.G., **1259**

Luoni, G., **1021**

Malburg, P.G., **1017**
Maschio, G., **1021**
Morris, C., **1027**
Morrison, R.E., Corcoran, J.C.W., **517**

Oliver, A.J., **1015**

Paddison, E., **762**
Papadopulos, M.S., **1015**
Peschke, E., **1015**
Pratt, F.C., **1265**

Redfern, M.A., **761**
Reece, A.B.J., **1259**
Ryan, Lugton & Brackett, **1027**
Ryder, D.H., **1265**

Sanderson, J.V.H., **762**
Sandham, B., **517**
Sergeant, V., **47**
Smee, G.J., **1021**
Soulsby, D.R., **1021**
Stalewski, A., **762**
Steel, J.G., **1259, 1265**

Thelwell, M.J., **1021, 1259**
Thomas, A.L., **519**
Treece, D.R., **1259**

Usher, B., **761**

Wafer, R.V., **1256**
Walshe, K.A., **518**
Ward, G.M., **1257**
Whittaker, J.C., **761**

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Mathematics: Detailed mathematical treatment, if essential, should be given in Appendixes, only the minimum of mathematics appearing in the main text. Other comparable material can often advantageously be made into Appendixes. The IEE may require an Appendix containing detailed mathematical treatment to be deposited in the IEE Library, as above, rather than published in the *Proceedings IEE* with the paper.

3 Typescript and diagrams. The complete manuscript must be neatly typed, with double line spacing and a left-hand margin. The whole text – apart from the Abstract – should preferably be sectionalised and numbered, using the decimal system. It is generally preferable not to go beyond the second classification in the decimal system, i.e. 1.1, 1.2 etc. Diagrams and equations, however, should be numbered in sequence.

Mathematics, where not typed, must be very clearly written. **Symbols invented by the author cannot usually be set by the printer.**

Authors should use, for example, $\exp(1-\alpha)$ in preference to $e^{1-\alpha}$. Dots should not be used to indicate multiplication of scalar quantities, and bars over symbols should not be used in place of brackets or to indicate mean values.

Diagrams and illustrations **should be completely separate from the typescript,** and must be absolutely clear and neat. Each diagram should be on a separate sheet of paper. Glossy and unmounted photographs permit the best grade of reproduction. Tables should be inserted in the text nearest the page on which they are first referred to.

Four copies (in all) of the typescript and diagrams should be submitted. Normally a single copy is returned when a paper is not accepted for publication.

4 Submission. Typescript and copies of illustrations should be sent to: Editor of the *Proceedings IEE*, PO Box 8, Southgate House, Stevenage, Herts. SG1 1HQ. England. It is recommended that these should be packed flat and very firmly, and sent by recorded-delivery post. Tracings of line drawings should be retained for later submission or prepared when the paper has been accepted: the Editorial Department will then supply guidance on the final preparation of tracings. On the first page of the typescript, the author should state his name, title, honours, degrees, qualifications etc., the address to which communications about the paper should be sent, and brief details of the post that he holds.

5 Referees. All papers are submitted to expert referees who are familiar with the class of work concerned, and the relevant Boards take decisions in the light of their reports. Names of referees are *never* divulged to authors.

6 Proofs. Page proofs are sent to the author(s). Corrections are very expensive, and should therefore be limited to matters of fact and reduced to the absolute minimum. Authors are asked to indicate them in **red** ink on the proof itself, and ensure that any substituted material is of the same number of letters as the material removed.

7 Publication. An author may be invited to read his paper before a meeting of the IEE, but this will not delay its publication in the *Proceedings.* Twenty-five reprints of each paper are presented free of charge to the author or to the authors jointly. Extra copies can be purchased. A number of Premiums are awarded each year for papers that the IEE Council considers to be sufficiently meritorious.

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9 IEE usage. Authors are asked to study recent issues of the *Proceedings IEE*, and try to conform to their general style. It will help the editorial staff if, as far as possible, authors will adopt the IEE's usage in matters such as hyphenation, spelling, punctuation etc.

The IEE usage may be summarised as follows:

(*a*) *Title:* Brief titles are desirable, and anything over ten words should go in a subtitle.

(*b*) *Abstract:* This should be as brief as possible (normally not more than 200 words), and should summarise the conclusions of the paper. It should be self explanatory and not require reference to the paper itself.

(*continued overleaf*)

NOTES FOR THE GUIDANCE OF AUTHORS OF PAPERS FOR THE *PROCEEDINGS IEE* (*continued*)

(*c*) *Diagrams etc.:* At least one reference, in the text, to each diagram or illustration is desirable.

The diagrams originally submitted will normally be clear prints, but it will help the editor if authors of accepted papers are later able to supply tracings, on cloth or paper. Authors will be asked to assist as far as possible in preparing the tracings for publication, and guidance on the correct lettering sizes will be given when the paper is accepted.

A separate list of legends should be submitted, as it is of much assistance to the editor.

(*d*) *Acknowledgments:* Sources of information and assistance in the preparation of papers can here be acknowledged. Any necessary references to particular organisations, or to proprietary articles, may also be included, but they should not be included elsewhere in the text.

(*e*) *Nomenclature, symbols and units:* Authors are asked to follow the usages of the relevant British Standard glossaries, the International Electrotechnical Vocabulary (and the symbols contained therein) and Chamber's Twentieth Century Dictionary.

The IEE has decided that Système International (SI) units are obligatory in all manuscripts submitted. Manuscripts using other units will be returned to the authors for revision before the start of the refereeing process. Authors are referred to BS3763: 1970 'The international system of units (SI)'. All units, including those in Appendix A therein, are permitted, together with the decibel and the neper. A complete list of symbols and units should be included with the paper. This is often helpful to the editor, referees and readers.

(*f*) *References:* Bibliographical references should be numbered and listed in a special Section, and indicated in the text by indices, as in the following examples:

1 WILKINS, R., and McEWAN, P.M.: 'A.C. short-circuit performance of uniform-section fuse elements', *Proc. IEE*, 1975, 122, (3), pp. 285–288

2 LIPSKI, T., and ZIMNY, P.: 'Ein Beitrag zur Berechnung des Jouleschen Lichtbogenintegrals und der Ausschaltarbeit von Strombergrenzenden Schmelzsicherungen', *Elektrotech. & Maschinenbau*, 1972, 89, pp. 461–464

3 PURCELL, J.J., WEATHERHEAD, M.R., GORDON, S.M.R., OXLEY, C.H., and WICKENS, P.R.: 'High efficiency trapatt operation in *X*-band', *Electron Lett.*, 1975, 11, pp. 236–238

4 HACKAM, R.: 'Effects of voltage polarity, electric current, supply frequency and addition hydrogen and air on the electrical breakdown in vacuum', *J. Appl. Phys.*, 1975, 46, (to be published)

5 NABONA, N.: 'Optimal dispatch in power systems using mathematical programming and sensitivity coefficients' Ph.D. thesis, University of London, 1974

6 LASDON, L.S.: 'Optimisation theory for large systems' (Macmillan, 1970)

7 DENLIGER, E.J.: 'Design of partial-height ferrite waveguide circulators'. *IEEE Trans.*, 1974, MTT-22, pp. 810–813

8 DAVIES, E.J., and WRIGHT, M.T.: 'Transient behaviour of eddy-current couplings'. Presented at the electrical machines conference. City University, London, Sept. 1974

Titles of books or papers printed in languages using the Latin alphabet should be given in the original language. The first and last pages of each reference should be given.

Titles using Cyrillic, Greek or Arabic characters should be transliterated using BS2979 (Cyrillic and Greek) or BS4280 (Arabic).

The IEE abbreviates the names of periodicals according to the current edition of the Science Abstracts 'List of journals', which is based on the new edition of BS4148 'Abbreviations of titles of periodicals'. Unless they themselves use this list of abbreviations, authors are asked to write in full the unabbreviated titles and details of all publications referred to.

Private communications should be listed as footnotes to the text, **not in References.**

Authors are especially requested to use double line spacing or triple line spacing in the typing of the References, and to allow wide margins.

It is clearly necessary for the IEE to attempt to secure some uniformity of presentation of papers by different authors on different subjects. In general, the editor will seek to adhere to the usages above, but it is recognised that there will be some instances where departure from these may be appropriate. Within a broad pattern of uniformity, the editorial staff wishes to help authors in the effective presentation of their papers, and will meet all reasonable requests in relation to publication.

It is desirable that papers be published without avoidable delay, and authors are asked, wherever possible, to assist in this aim at all stages of the procedure.

APPENDIX TO NOTES FOR THE GUIDANCE OF AUTHORS OF PAPERS FOR THE *PROCEEDINGS IEE*

Divisions of the IEE and titles of Professional Groups

Control & Automation Division

The *Control & Automation Division* includes within its scope all matters relating to the theory and practice of control and automation, together with the relevant applications stemming from a technology of another Division.

C1 Control theory
C2 Control methods and computing
C3 Control applications
C4 Control applications
C5 Automation applications
C6 Control aspects of biological and man/machine systems
C7 Measuring and control equipment
C8 Land transport, electronics and control
C9 Information processing

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The *Electronics Division* includes within its scope all matters relating to the generation, transmission, propagation, reception or other use of electromagnetic energy, other than at power frequencies, and components associated therewith whether for communication or for other purposes and to the electrical recording and reproduction of sound and vision, together with relevant applications stemming from a technology of another Division.

E1 Electronic measuring instruments and techniques
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E3 Solid-state devices and techniques
E5 Vacuum and gas-filled devices
E6 Medical electronics
E7 Telecommunication networks and systems
E8 Radiocommunications systems
E9 Satellite communication
E10 Circuit theory and design
E11 Radio propagation and aerials
E12 Microwave devices and techniques
E13 Optical and infrared devices and techniques
E14 Television and sound
E15 Radar, sonar and navigation systems

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P1 Rotating electrical machines
P2 Railway traction and signalling
P4 Industrial applications and processes
P5 Nonindustrial utilisation and electrical building services
P6 Rectification and inversion equipment
P7 Transmission and distribution plant
P8 Power cables and overhead lines
P9 Power-system planning
P11 Measurement, protection and control (power systems)

Science, Education & Management Division

The *Science, Education & Management Division* includes within its scope those aspects of science, education and management relevant to the profession of electrical engineering and other matters of general interest to members of the IEE. It is linked with other Divisions through its concern with the principles and practices of science, education and management, and it operates jointly with them in areas of overlapping interests.

S1 New concepts in generation, distribution and use of electrical energy
S2 Materials science and technology
S3 Phenomena in ionised gases and in vacuum
S4 Measurements
S5 Education and training
S6 Engineering management
S7 History of technology